



STAFF REPORT

HYLA CROSSING STORMWATER OUTFALL DISCHARGE

Shoreline Variance Permit – SHO21-00010

APPLICANT: Kristi Tripple, Vice President, Community Development, Rowley Properties

STAFF CONTACT: Doug Yormick, Environmental Planner, 425-837-3083, doug@issaquahwa.gov

REQUEST: The project proposes a new stormwater management facility and associated infrastructure, including stormwater pump station, pipeline, and nearshore outfall adjacent to Lake Sammamish. This facility is being built to handle existing stormwater and will not be associated with new stormwater impacts.

The proposed stormwater pipe alignment traverses an associated wetland to Lake Sammamish, a shoreline of the state, where an outfall is proposed to be located 10-feet from the ordinary high-water mark of Lake Sammamish.

Upon completion, ownership of the facility will be conveyed to the City of Issaquah for long-term management and maintenance after construction.

PUBLIC NOTIFICATION: September 15, 2021: Notice of Application mailed to property owners within 300-feet.
October 6, 2021: Notice of Neighborhood Environmental Meeting mailed to property owners within 300-feet, and posted on the City's website and Active Project Map
October 19, 2021: Shoreline Public Meeting, Neighborhood Environmental Meeting

BACKGROUND: Hyla Crossing is a 60-acre collection of developed parcels located in the City of Issaquah (City). The City and Rowley Development entered into a Development Agreement (DA) for the Hyla Crossing properties in 2011 including a Hyla Crossing Master Drainage Plan (MDP).

The Hyla Crossing Pump Stormwater Discharge project proposes a new stormwater management facility and associated infrastructure, including stormwater pump station, pipeline, and nearshore outfall adjacent to Lake Sammamish (the "Project"). The DA and MDP outlined several items related to stormwater management. In lieu of detention, the Project will split stormwater flows between Tibbetts Creek and Lake Sammamish (the "Lake"). The City of Issaquah Drainage Manual and Ecology's Western Washington Storm Water Manual have designated the Lake as a flow control exempt receiving water body. Meaning, the Lake has sufficient capacity to accept runoff from current and future development within its drainage basin. The designation allows for direct discharge of stormwater to the Lake. However, water quality standards are applicable to Lake discharge.

The DA considered traditional detention onsite with stormwater discharge to Tibbetts Creek. To achieve a similar hydraulic performance of the pump station, the detention vault would contain 558,000-cubic feet of storage. The excavation of the vault would be 20-feet to allow

gravity flow from upstream storm drainage. The site contains high ground water table which would create uplift pressure on the vault structure and will be unable to resist uplift pressure on the vault floor from ground water forces. Peat soils were also a factor not choosing traditional detention on site.

The basic Project elements were outlined in a threshold SEPA Determination SEP11-00005 (Exhibit 9), dated March 14, 2012. The preferred alternative in 2012 was a submerged outfall on the lakebed of Lake.

In subsequent years additional analysis was collected to better map the Lake's bathymetry where the outfall was proposed. This data disclosed the lakebed drop-off was more gradual than anticipated. It was determined the submerged outfall would need to be placed 200-feet offshore from Ordinary High-Water Mark ("OHWM").

On February 27, 2019, a Joint Agency Pre-Application meeting was held to discuss outfall options. Included in the meeting were representatives from the City of Issaquah, US Army Corps of Engineers (USACOE), Washington Department of Ecology (Ecology), Washington Department of Fish and Wildlife (WDFW), and the Muckleshoot Indian Tribe (together, the "Agencies"). Several of the Agencies expressed concern about the invasive nature and high risk of causing impacts to Lake resources with a submerged outfall. The result of the meeting discarded the submerged alternative in favor of a near-shore outfall 10-feet from OHWM.

Analysis SMP policies and regulations:

1. The proposed Project falls within the jurisdiction of the Issaquah Shoreline Master Program (SMP) because it is located within 200 feet of the OHWM of the Lake. Developments within this area require a permit to review for consistency with the SMP.
2. The Project is a Stormwater Utility, which is a permitted use in the Lake Sammamish Urban Conservancy Environmental Designation per SMP Table 1 Permitted Uses (pg. 39). See excerpt below.

Shoreline Use	Proposed Shoreline Environment Designations						
	Shoreline Commercial/Mixed Use	High Intensity Transportation	Lake Sammamish Shoreline Residential	Issaquah Creek Shoreline Residential	Lake Sammamish Urban Conservancy	Issaquah Creek Urban Conservancy	Natural
Utility Use and Development	P	P	P	P	P	P	P

3. The Project does not meet the threshold for an exemption from a shoreline substantial development permit established in WAC 173-27-040. Therefore, a Shoreline Substantial Development Permit (SSDP) is required.
4. A SSDP is authorized to be reviewed under the Administrative Review Process Level 2 review in accordance with Section 18.04.360. F. of the Issaquah Municipal Code (IMC). A SSDP permit was applied for on April 14, 2022.
5. The SMP adopts as its Appendix A IMC 18.10.340 through 18.10.930 IMC, Critical Areas Regulations, Development Standards, and Administration. IMC 18.10.610.B.2 allows for stormwater facilities in the outer 25 percent of a standard wetland buffer without a variance.

6. Chapter 1 of the SMP excludes from use with SMP applications the Variance provision in IMC 18.10.430 and requires a Shoreline Variance according to the provisions of WAC 173-27 instead. SMP 1.5.5.a.8. A Shoreline Variance was applied for June 17, 2021 (Exhibit 1).
7. Public notification was provided to residences with 300-feet of the proposed development per IMC 18.04.180 (Exhibit 2).
8. Per IMC 18.10.410.F a neighborhood environmental meeting is required for all Level 2 permits, which require a critical area study. Notification of the meeting was provided to all residences within 300-feet of the proposed development and held October 19, 2021 (Exhibit 4).
9. The following are applicable SMP regulations that apply to the application for a Shoreline Variance Permit along with the City's findings for each:

Shoreline Variance Analysis

8.2.5 Shoreline Variance

1. A development or use that does not comply with the bulk, dimensional and/or performance standards of this Program shall require a shoreline variance even if the development or use does not require a substantial development permit.
2. A Shoreline Variance shall follow the provisions in this section and other applicable sections of the Shoreline Master Program. A Reasonable Use Variance under the Critical Areas Regulations IMC 18.10.430 shall not apply within shoreline jurisdiction. A variance shall require review, pursuant to IMC 18.04 Procedures. The Department of Ecology shall be the final approval authority under WAC 173- 27-200.

Staff Findings: *Since the stormwater pipe and outfall are located wholly in an associated wetland, the project is subject to the shoreline variance criteria found in WAC 173-27 and the SMP.*

3. The purpose of a shoreline variance is to grant relief to specific bulk or dimensional requirements set forth in this Program where there are extraordinary or unique circumstances relating to the property such that the strict implementation of this Program would impose unnecessary hardships on the applicant/proponent or thwart the policies set forth in RCW 90.58.020. [WAC 173-27-170]

Staff Findings: *The Project requires relief from IMC 18.10.610.B.2 to allow a stormwater facility in an associated wetland with an outfall to Lake Sammamish. The following are unique circumstances related to this property. The Lake is regarded as a receiving body for stormwater. The direct path from the Hyla crossing neighborhood to the Lake involves traversing through an associated wetland.*

The pumpstation will decrease the untreated stormwater surface flow to Tibbetts Creek, which is on the 303(d) list for temperature, dissolved oxygen, and heavy metal pollutants. This will bring the neighborhood into compliance with the National Pollution Discharge Elimination System (NPDES).

The Hyla Crossing neighborhood has an active development agreement (DA) to redevelop the site as a mixed-use neighborhood. As redevelopment occurs, stormwater will be treated at the source to current standards, including enhanced water quality treatment

An unnecessary hardship would result from strict compliance with IMC 18.10.610.B.2. The Rowley's have a development agreement with the City to redevelop the Hyla crossing neighborhood. The method of stormwater provided for the development was indicated in the Hyla

Crossing and Rowley Center EIS, Planned Action Ordinance and DA for the site. Changes to the DA of this magnitude will constitute a breach of contract and/or make the City liable for monetary costs incurred for changes to stormwater infrastructure.

4. Shoreline variance permits should be granted in circumstances where denial of the permit would result in a thwarting of the policy enumerated in RCW 90.58.020. In all instances extraordinary circumstances shall be shown and the public interest shall suffer no substantial detrimental effect. [WAC 173-27-170(1)]

Staff Findings: *The Project provides reasonable and appropriate use of the shorelines of the state consistent with RCW 90.58.020. It enhances the public interest because currently, untreated stormwater from the Hyla Crossing neighborhood flows into Tibbetts Creek through a series of stormwater outfalls. The Hyla Crossing neighborhood consists of development that preceded current stormwater regulations. Tibbetts Creek is listed on the 303(d) list for pollutants. Tibbetts Creek flows directly to Lake Sammamish, a shoreline of statewide significance.*

While the proposed alignment will traverse an associated wetland, periodic check dams will allow subsurface water to flow naturally through the wetland. The alignment will take the shortest path, while avoiding mature shoreline vegetation. The outfall will be located 10-feet from OHWM of Lake Sammamish and consist of a bubble-up structure and rock pad for dispersion.

Currently, there is a walking path through the wetland, but no path provides access to the Lake. The path through the wetland is managed by the City's Parks Department. The path will remain following construction.

5. The burden of proving that a proposed shoreline variance meets the criteria in WAC 173-27-170 shall be on the applicant. Absence of such proof shall be grounds for denial of the application.

Staff Finding: *The applicant has provided all materials for review of the Shoreline Variance permits and shown the Project satisfies the applicable criteria.*

- 6(a-h). A variance from the standards of the master program may be granted only when the applicant can demonstrate that all the following conditions will apply:

- a. That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes, or significantly interferes with, reasonable use of the property; [WAC 173-27-170(2)(a)]

Staff findings: *Denying the proposed variance would significantly interfere with reasonable use of the Property. Stormwater management is required for development and the applicant proposes with the Project stormwater management that complies with policies of the SMP and SMA and still allows reasonable development to occur.*

The Rowley's have a DA with the City to redevelop the Hyla crossing neighborhood. The method of stormwater provided for the development was indicated in the Hyla Crossing and Rowley Center Environmental Impact Statement and the DA for the site. Changes to the DA of this magnitude will constitute a breach of contract and/or make the City liable for monetary costs incurred for changes to stormwater infrastructure.

The Project proposes an outfall directly to Lake Sammamish in order to bypass Tibbetts Creek from certain ranges of stormwater releases from the Hyla Crossing development. The intent of

the outfall is to manage future stormwater as per NPDES as the Hyla Crossing collective properties are redeveloped. The Property through which this pipeline will pass, and on which the outfall will be located, requires a shoreline variance because the Project proposes a utility through a wetland on the Sammamish Cove property.

Previous studies evaluated another option, which is now recognized as a more environmentally detrimental option. It would have constructed an in-water outfall that would extend out into Lake Sammamish. However, since those studies were completed in 2011 best available science has progressed. During a joint Agency meeting held in 2019, a combination of feedback from Ecology, the Muckleshoot Tribe, WDFW, and the US Army Corps of Engineers established that none of those entities could support an outfall that was below the OHWM of Lake Sammamish for a variety of reasons. It was determined that an outfall outside of the OHWM was the best, less impactful solution.

With the guidance provided to evaluate options for an outfall outside of the Lake OHWM, the potential for a dispersion trench at the upper limits of Wetland E was evaluated. A dispersion trench at the upper limits of Wetland E would have reduced the direct impacts to Wetland E. However, Ecology noted that its stormwater manual would make permitting a dispersion trench through a wetland in this fashion very challenging because the Ecology stormwater regulations had no clear regulatory path nor language in the manual that would guide decision-making. Additionally, the City at the time was averse to this alternative given concern of stormwater added directly to public open space and the potential effects of additional stormwater inputs on the existing bark trail through the wetland that is used for public recreation.

By incorporating the Ecology guidance, in conjunction with the other state and federal requirements regarding approvable locations of outfall structures, it was determined that an outfall located 10 feet landward of the Lake OHWM would be the best solution that met the requirements of all involved agencies. An outfall at this location requires the pipeline cross Wetland E on the Sammamish Cove property. This solution requires access to the Sammamish Cove property as this is the only City-owned access to the Lake in this area. The installation of the pipeline across and the permanent outfall on the Sammamish Cove property will not interfere with the current uses of the property for public recreation through the onsite pedestrian trails or the critical areas already onsite. While the City is in the process of several habitat restoration projects on the Sammamish Cove property, the proposed Project will not hinder these restoration efforts, or future restoration efforts, but will contribute towards that same goal through the onsite mitigation proposed to restore areas of temporary wetland or buffer impact.

- b. That the hardship described in (1) of this subsection is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the master program, and not, for example, from deed restrictions or the applicant's own actions; [WAC 173-27-170(2)(b)]

Staff Findings: The hardship requiring the variance is specifically tied to the presence of a wetland on the City-owned Sammamish Cove property and is not related to any action of the Applicant. The wetland is a large system that extends between Schneider and Tibbetts Creeks.

No path to the lakeshore exists that would require less critical area impacts than what is proposed by the Project.

- c. That the design of the project is compatible with other authorized uses within the area and with uses planned for the area under the comprehensive plan and shoreline master program and will not cause adverse impacts to the shoreline environment; [WAC 173-27-170(2)(c)]

Staff findings: *The Project is compatible with other authorized uses in the area, primarily as a critical area and as a pedestrian trail that is located through Wetland E. The pipeline will not restrict the wetland functions, nor will the pipeline impede public usage of the existing trail system, except for a short time during construction since the pipeline does cross the pedestrian trail.*

- d. That the variance will not constitute a grant of special privilege not enjoyed by the other properties in the area; [WAC 173-27-170(2)(d)]

Staff findings: *The variance requested is not a special privilege, but access to the Lake for a public utility that will benefit the City and its residents. Properties along the lake could discharge stormwater directly to Lake Sammamish when in compliance with Washington Department of Ecology Stormwater Manual for Western Washington, the SMA, SMP, and Title 18 Issaquah Municipal Code.*

- e. That the variance requested is the minimum necessary to afford relief; [WAC 173-27-170(2)(e)].

Staff Findings: *This Project has been evaluated on a number of occasions, including discussions that resulted in the DA, and again during the SEPA process in 2011 and prior that resulted in the issued Environmental Impact Statement for the DA Project, as well as more recently in preparation of this application. The Project has been redesigned and modified numerous times to assure that the Project is the minimum necessary to achieve the Project while meeting all required local, state, and federal regulations.*

- f. That the public interest will suffer no substantial detrimental effect; [WAC 173-27-170(2)(f)]

Staff findings: *The proposed pipeline and outfall will ultimately be a net benefit to the public as it will ensure improved handling of future stormwater flows to Lake Sammamish.*

- g. That the public rights of navigation and use of the shorelines will not be adversely affected.

Staff findings: *No navigation will be affected by the Project, nor will public use of the shoreline at this location be adversely affected since no direct shoreline public access is encouraged at the location of the Project. The existing pathway through the property will not be permanently impacted with the development. The pipe alignment and outfall are located in an associated wetland.*

- h. That consideration has been given to the cumulative effect of like actions in an area where similar circumstances exist, and whether this cumulative effect would be consistent with shoreline policies or would have substantial adverse effects on the shoreline. [WAC 173-27-170(4)].

Staff findings: Both the SMP and the 2014 Ecology Stormwater Manual allow for direct discharge into the Lake. A stormwater pipe alignment and outfall are a permitted use within shoreline jurisdiction. This situation is unique where an associated wetland is between the development and the Lake. The City adopted portions of Chapter 18.10 IMC as an SMP appendix. The City's wetland regulations apply in addition to the SMP. Per IMC 18.10.610.B.2 stormwater facilities can only be located within the outer 25% of a wetland buffer. Since the project must cross the wetland to the Lake a Variance is required. There are not many areas within the City where an associated wetland creates a barrier to a permitted shoreline use.

7. Before making a determination to grant a shoreline variance, the City shall consider issues related to the conservation of valuable natural resources, and the protection of views from nearby public roads, surrounding properties and public areas.

Staff findings: The proposed pipe alignment will be buried and out of public view. The alignment was chosen as the shortest path while avoiding mature shoreline vegetation. The outfall is in a location out of public view and no existing paths provide access to the Lake in this location. Any permanent wetland impacts will be mitigated onsite and with the purchase of wetland credits from Keller Farm in Redmond.

8. A variance from City development code requirements shall not be construed to mean a variance from shoreline master program use regulations and vice versa. Shoreline variances may not be used to permit a use that is specifically prohibited in an environmental designation, or to vary uses permitted within an environmental designation.

Staff findings: Stormwater utility is a permitted use in the Lake Sammamish Urban Conservancy Shoreline Environmental Designation.

9. The City shall not issue a permit for any new or expanded building or structure that exceeds a height of thirty-five (35) feet above average grade level that will obstruct the view of a substantial number of residences except with a shoreline variance, provided an applicant can demonstrate overriding considerations of the public interest will be served.

Staff findings: The stormwater outfall along the Lake will be less than 2-feet above grade. Though the stormwater pump station building is outside of shoreline jurisdiction the height of the building is proposed to be 23-feet.

WAC 173-27-170(3)

Variance permits for development and/or uses that will be located waterward of the ordinary high water mark (OHWM), as defined in RCW 90.58.030 (2)(c), or within any wetland as defined in RCW 90.58.030 (2)(h), may be authorized provided the applicant can demonstrate all of the following:

- (a) That the strict application of the bulk, dimensional or performance standards set forth in the applicable master program precludes all reasonable use of the property;

Staff Findings: See 6(a) in the staff report.

- (b) That the proposal is consistent with the criteria established under subsection (2)(b) through (f) of this section;

Staff Findings: See 6(b-f) in the staff report.

- (c) That the public rights of navigation and use of the shorelines will not be adversely affected.

Staff Findings: No navigation will be affected by the Project, nor will public use of the shoreline at this location be adversely affected since no direct shoreline public access is encouraged at the location of the Project. The existing pathway through the property will not be permanently impacted with the development. The pipe alignment and outfall are in an associated wetland.

Public Comment

Public notification was provided for this Project. All residents within 300' of the proposal were notified. Several public comments were received. Most comments discussed the discharge of stormwater directly to the Lake and its impacts on flooding. The public comments and responses from the applicant are included as Exhibit 6.

Additionally, the City held an Environmental Neighborhood Meeting on October 19, 2021. During the meeting residents brought up flooding concerns. Staff heard the comments and asked the applicant to evaluate the impacts of stormwater from the Hyla Crossing neighborhood to residents along the Lake. City Staff had the Lake Level Analysis peer reviewed by Parametrix (Exhibit 8). The Project will not result in an increase in the Lake levels

SEPA:

A Determination of Non-Significance (DNS) was issued by the City of Issaquah March 14, 2012. A 21-day comment period was provided. Additionally, a 14-day appeal period was provided expiring March 29, 2012. No appeals were filed with the City. A copy of the DNS can be found in Exhibit 9.

The original SEPA determination discussed an outfall below OHWM of Lake Sammamish. During preliminary pre-application meetings with Ecology, USACOE, and other stakeholders, it was determined the below OHWM was infeasible. Factors included a much longer pipeline to reach appropriate depths, impacts to fish habitat, among others. An upland outfall was deemed appropriate and the least impactful alternative.

However, an upland outfall was not evaluated under the original SEPA checklist and threshold determination. During shoreline permit review and a neighborhood environmental public meeting, issues were raised regarding localized flooding impacts the outfall may have within the Sammamish Cove property. The applicant provided a lake level analysis (Exhibit 7), which was subsequently peer-reviewed by Parametrix. The peer-review concurred with the lake level analysis findings. No localized impacts will result from the outfall (Exhibit 8).

An addendum dated February 13, 2023, analyzed this information and the SEPA Responsible Official determined no significant adverse environmental impacts will occur with this Project. A SEPA addendum has been uploaded to the SEPA Registrar on February 13, 2023, to reflect the new information provided.

Exhibit List

1. Shoreline Variance application received May 26, 2021
2. Notice of Application and Affidavit of Mailing
3. Shoreline Variance Plan-set, received May 26, 2021, revised April 20, 2022
4. Notice of Neighborhood Meeting and Affidavit of Mailing
5. Neighborhood Environmental Meeting Notes dated October 19, 2021
6. Public Comments Received
7. KPFF Lake Level Analysis, dated June 8, 2022
8. Parametrix Peer-review of Lake Level Analysis, dated August 18, 2022
9. SEPA Determination of Non-significance, dated March 14, 2012
10. SEPA Addendum, dated February 13, 2023

Land Use Application #966949 - Hyla Crossing Pumped Stormwater Discharge

Project Contact

Company Name: Rowley Properties

Name: Kristi Tripple

Email: kristit@rowleyproperties.com

Address: 1595 NW Gilman Blvd Ste 1
Issaquah WA 98027

Phone #: 4253959592

Project Type

Any Project Type

Activity Type

Shoreline Development

Scope of Work

Shoreline Variance

Project Name: Hyla Crossing Pumped Stormwater Discharge

Description of Work:

The Hyla Crossing Stormwater Force Main Project proposes to construct a new pipeline that will convey stormwater within a targeted range from a new pump station to a nearshore outfall next to Lake Sammamish. The pipeline will total approximately 2,897 linear feet long. This pipeline will consist of a 24-inch HDPE force main to convey water to Lake Sammamish from the Hyla Crossing properties. Permanent wetland impacts are reduced to 805 square feet with more temporary impacts to critical areas proposed. Permanent impacts will be mitigated through purchase of credits at a mitigation bank. Temporary impacts will be restored.

Project Details

Project Information

Use - existing

Site for pump station is vacant land while the pipeline crosses roads, including I-90, roadside swales, and critical areas.

Quantity and Size Specifications

Maximum proposed building height

0

Additional Parcels:

2024069070

DECLARATION OF SERVICE OF MAILING

I, BRIAN D. MOSS, state and declare as follows:

That on the 15th day of September, 2021, I deposited in the mail of the United States a sealed envelope containing a public hearing notice, decision or recommendation with postage prepaid addressed to the adjacent property and/or parties of record in the below entitled application or petition:

Notice of Application: SH021-00010 "Hyla Crossing Stormwater Discharge"
- Vicinity map, site plan; 300' Notice buffer map

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Signed on the 15th day of September, 2021 at Issaquah, Washington.

BRIAN D. MOSS

Printed Name

Brian D. Moss

Signature



CITY OF
ISSAQUAH
WASHINGTON

Development Services Department
1775 12th Ave. NW, P.O. Box 1307
Issaquah, WA 98027
425-837-3100 DSD@issaquahwa.gov

Notice of Application

Project Name: Hyla Crossing Stormwater Discharge

Application: May 26, 2021
Application Complete: June 15, 2017
Notice of Application: September 16, 2021

Notice of Application Public Comment Period:

September 16, 2021 – September 30, 2021
(See Public Comment below for more information)

PROJECT INFORMATION

File Number(s): SHO21-00010

Project Description: The Project proposes to construct a new pipeline that will convey stormwater from a new pump station to a nearshore outfall next to Lake Sammamish. The 24-inch HPE pipeline will total approximately 2,897 linear feet long and convey water to Lake Sammamish, through a wetland in Sammamish Cove Park. Because the pipe alignment and outfall location do not meet the city's shoreline master Program, a Shoreline Variance is being sought. (See Site Plan)

Project Location: Sammamish Cove Park (See Vicinity Map)

Size of Subject Area in Acres: 18.21 **Sq. Ft.:** 793,167

Applicant: Kristi Tripple, Rowley Properties
1595 NW Gilman Blvd Suite 1
Phone: 425-395-9592; Email: kristit@rowleyproperties.com

Decision Maker: Washington State Department of Ecology

Required City Permits: Administrative Site Development, Site Work, Building

Required City Permits, Not Part of this Application:
Administrative Site Development, Site Work, Building

Required Studies: Wetland; Critical Area

Existing Environmental Documents Relevant to this Application: SEP11-00005

REGULATORY INFORMATION

Zoning: CF-OS - Community Facilities - Open Space

Comprehensive Plan Designation: Lake Sammamish State Park

Consistent with Comprehensive Plan: Yes

Preliminary Determination of the Development Regulations that will be used for Project Mitigation and Consistency: Shoreline Master Program; IMC 18.10; IMC 16.36

PUBLIC COMMENT

Key application documents are available at the City's website: issaquahwa.gov/development. Click on the parcel, then select "View Related Documents and Permits" to see the available submittals. The full application is available for review at the Permit Center, City Hall Northwest, 1775 12th Avenue NW (next to Holiday Inn and behind Lowe's), 9 am – 5 pm. Please make an appointment with the Project Planner.

Although comments may be accepted up until the final decision is issued, submittal of comments during the Notice of Application Comment Period will ensure comments are considered prior to issuing a decision and will allow staff and/or the applicant to address comments as early in the process as possible.

Written comments are due by 5:00 pm on the Public Comment Period date noted above to:

Community Planning & Development Department
P.O. Box 1307, Issaquah, WA 98027

Or by e-mail to the Project Planner noted below.

To receive further public notices on this project please provide your name, address, and e-mail to the Project Planner and request to become a Party of Record.

Notice, when required, is required to be provided to property owners within 300 feet of the site and to Parties of Record. Please share this notice with others in your neighborhood who may be interested in this project. Property owner, Mortgagee, Lien Holder, Vendor, Seller, etc., please share this notice with tenants and others who may be interested in this project.

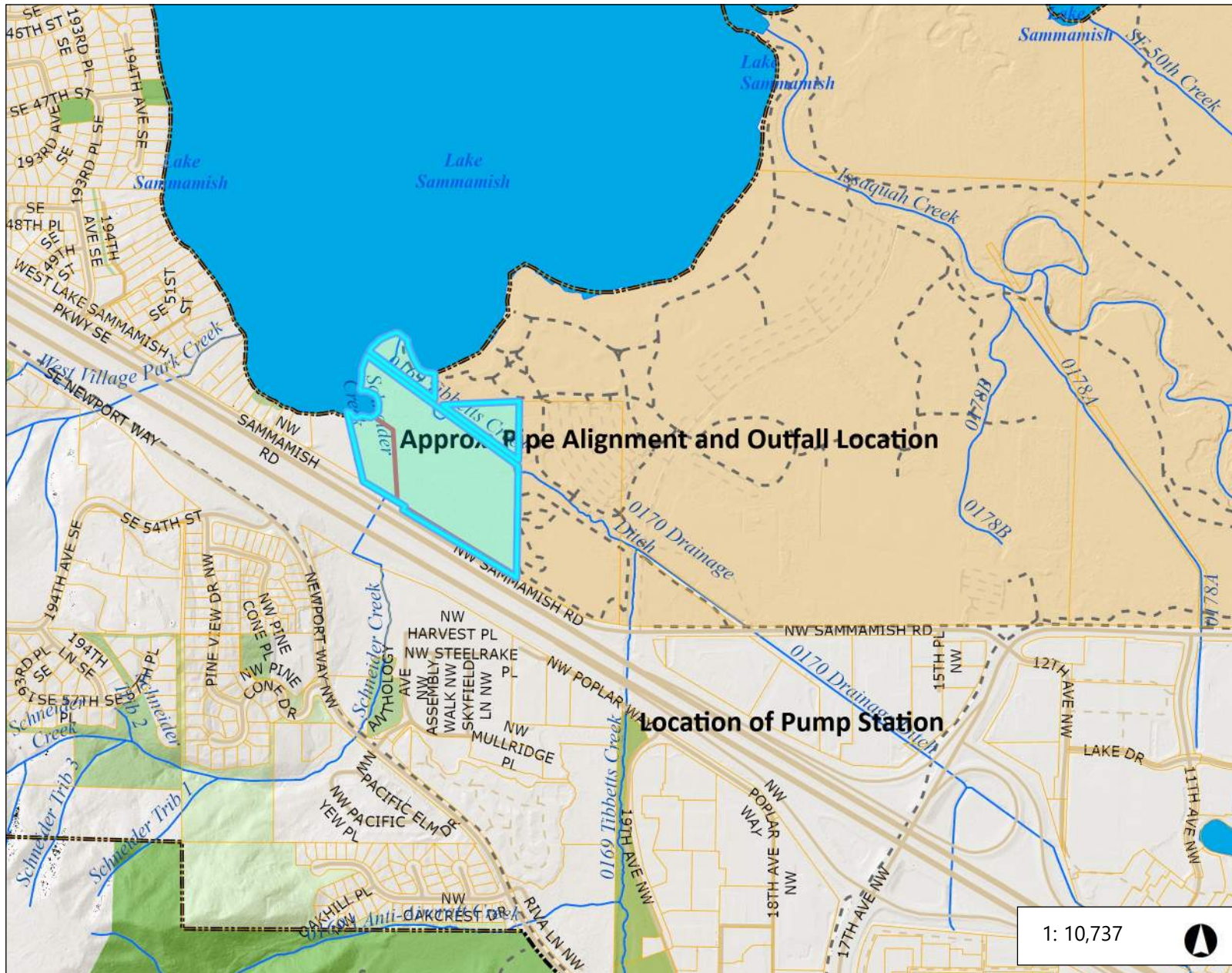
CITY CONTACT INFORMATION

Project Planner: Doug Yormick, Assistant Planner
Phone Number: 425-837-3083
E-Mail: dougy@issaquahwa.gov

Development Services Department:
Phone Number: 425-837-3100
E-Mail: CPD@issaquahwa.gov



Hyla Outfall Vicinity Map



1: 10,737

Legend

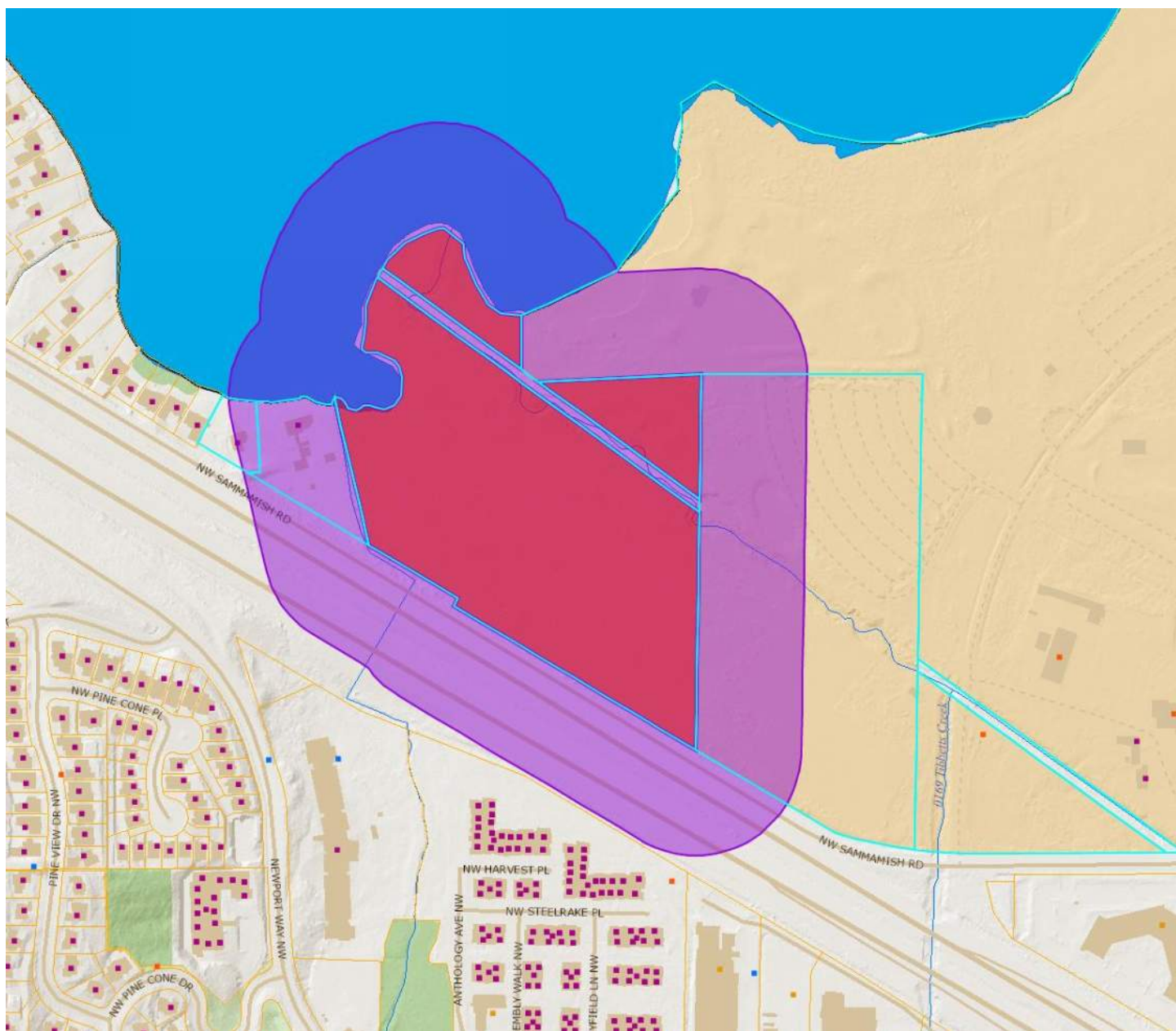
- Parcels
- Issaquah City Limits
- Streets (Medium scale)
 - STREET
 - HIGHWAY
 - RAMP
 - WALKWAY
 - DRIVEWAY; ACCESS; RETAIL AC
 - PERMANENTLY CLOSED
- Trails
- Railroad
- Water Bodies
- Streams
- Shaded Relief
- Parks - Open Space - NGPE
 - PARK
 - PARK/OPEN SPACE
 - OPEN SPACE
 - NGPE
 - STATE PARK

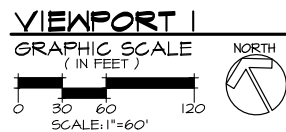
1,789.6 0 894.78 1,789.6 Feet

DISCLAIMER: These maps and other data are for informational purposes and have not been prepared for, nor are they suitable for legal, surveying, or engineering purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information. The City of Issaquah makes no warranty or guarantee as to the content, accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained herein.


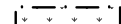


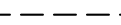






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SHO21-00010 300 Foot Notice Buffer Map










PLAN LEGEND

-  PROPERTY LINE
-  EXISTING WETLANDS
-  ORDINARY HIGH WATER MARK
-  STREAM BUFFER
-  DIRECTION OF FLOW
-  EDGE OF OPEN WATER
-  EXISTING CONTOUR (ODD)
-  POST-CONSTRUCTION BUFFER
-  SPLIT-RAIL FENCE
-  NGA SIGN
-  EXISTING TREES

IMPAIRMENTS LEGEND

TEMPORARY CONSTRUCTION IMPACTS - WETLAND E	28,716 SF
TEMPORARY CONSTRUCTION IMPACTS - WETLAND E BUFFER	13,025 SF
TOTAL TEMPORARY CONSTRUCTION IMPACTS	41,801 SF (0.96 AC)
PERMANENT WETLAND IMPACTS * (STORMWATER OUTFALL)	805 SF
PERMANENT WETLAND BUFFER IMPACTS * (MAINTENANCE ACCESS)	244 SF
TOTAL PERMANENT CONSTRUCTION IMPACTS *	1,049 SF (0.02 AC)

* MITIGATION REQUIRED FOR THE PERMANENT IMPACTS OF WETLAND E AND ITS BUFFER WILL BE PROVIDED BY PURCHASING CREDITS AT KFMB USING THE CREDITS PER UNIT IMPACT RATIOS PROVIDED IN THE KFMB'S MITIGATION BANKING INSTRUMENT (SEE CRITICAL AREAS REPORT)

MITIGATION LEGEND		
	RESTORATION OF TEMPORARY CONSTRUCTION IMPACTS - WETLAND E	28,716 SF
	RESTORATION OF TEMPORARY CONSTRUCTION IMPACTS - WETLAND E BUFFER	13,025 SF
TOTAL RESTORATION OF TEMPORARY CONSTRUCTION IMPACTS		41,801 SF (0.96 AC)
	TIBBETTS CREEK NORTHERN ENHANCEMENT AREA (PER EXHIBIT 16 Hyla CROSSING MSP/BSP 97-01 NOTED IN APPENDIX J, CRITICAL AREAS, EXHIBIT J-1, DEVELOPER'S AGREEMENT.)	26,154 SF (0.6 AC)
	VOLUNTEER RESTORATION AREA DISTURBED BY CONSTRUCTION	8,237 SF
	WETLAND ENHANCEMENT (AREA TO BE ENHANCED BY NUMBER OF WILLOWS DISPLACED BY CONSTRUCTION WITHIN THE VOLUNTEER RESTORATION AREA) (ESTIMATE: 8,237 SF (CONSTRUCTION AREA) X 0.0271 = 228 X 3 = 684)	

NOT FOR CONSTRUCTION

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NOTES

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2. SITE PLAN PROVIDED BY KFFHF, 1601 5TH AVE SUITE 1600 SEATTLE, WA 98101, (206) 622-5822.
3. SOURCE DRAINING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN MAY, 2021.

REVISIONS		
No.	DATE	DESCRIPTION
1	10/3/2019	30% CD
2	4/1/2020	ASDP
3	4/12/2021	ASDP REVISION #1
4	9/8/2021	ASDP REVISION #2
5	4/12/2022	ASDP/SSDP/SV

**SITE PLAN,
IMPACTS &
MITIGATION
OVERVIEW PLAN**

W2.1

ISSUE DATE

4/12/2021



HYLA CROSSING PUMPED STORMWATER DISCHARGE

ISSAQUAH, WA

OWNER



ROWLEY
PROPERTIES

595 NW GILMAN BLVD
BESSAQUAH WA, 98027

PROFESSIONAL SEAL

DESIGN TEAM

P, AO

PRINCIPAL

5

PROJECT MANAGER

2

PROJECT ARCHITECT

2

DRAWN BY

4

CHECKED BY _____

2

DRAWING SET DESCRIPTION

ASDP/SSDP/SV
RESUBMITTAL

VISIONS

No.	DATE	DESCRIPTION
1	10/3/2019	30% CD
2	4/1/2020	ASDP
3	4/12/2021	ASDP REVISION #1
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5	4/12/2022	ASDP/SSDP/SV

SHEET TITLE

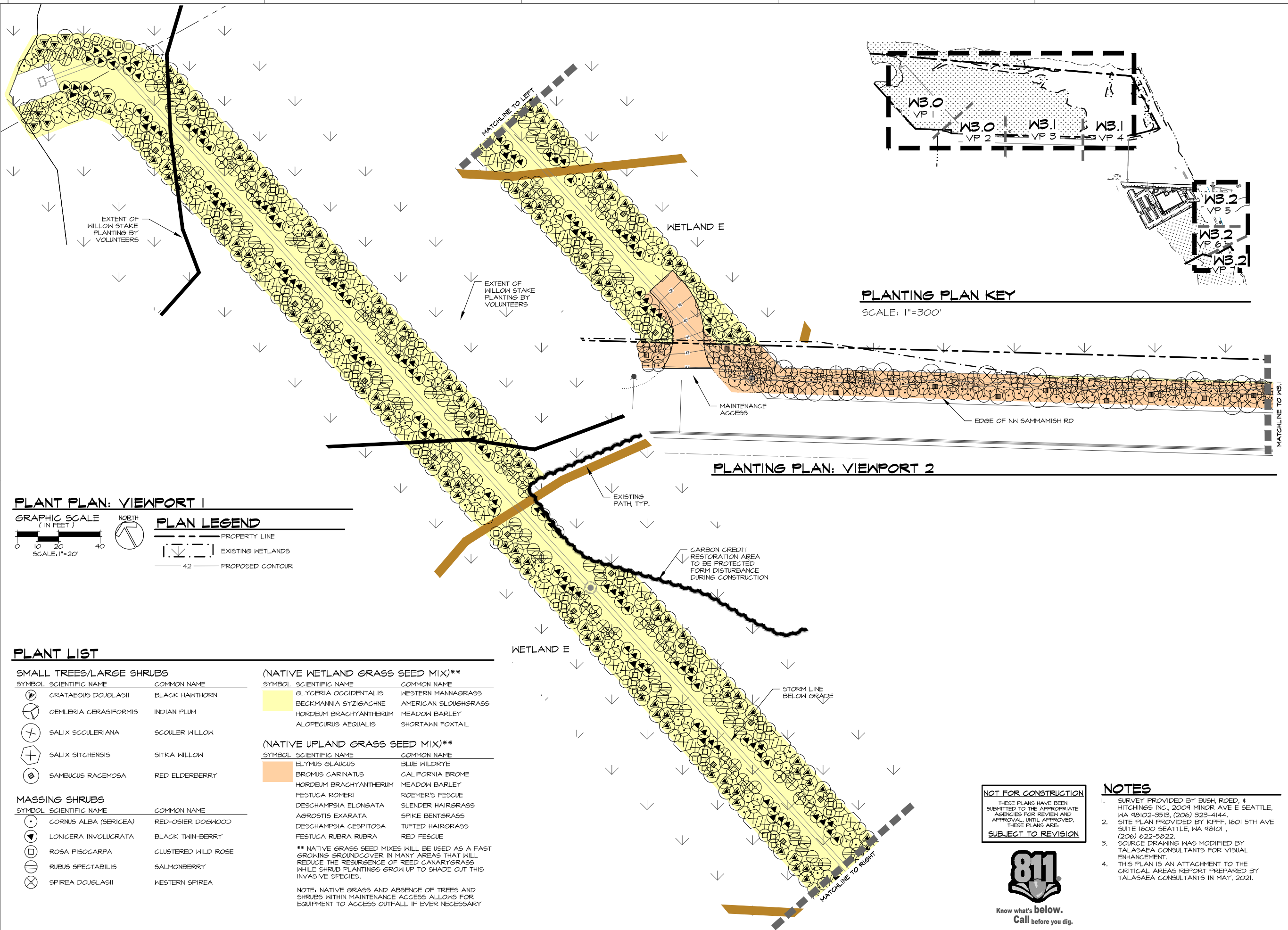
PLANTING PLAN

SHEET NUMBER

W3.0

ISSUE DATE

4/12/2021



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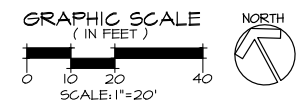
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NOTES

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**PLANTING PLAN:
VIEWPORT 5**



PLAN LEGEND







-
- PROPERTY LINE
EXISTING WETLANDS
(A, B, C, D & F)
- ORDINARY HIGH WATER MARK
0.6 ACRE OF THE 100-FT BUFFER
PER DA AGREEMENT
DIRECTION OF FLOW
- EDGE OF OPEN WATER
- EXISTING CONTOUR (ODD)
- ENGINEERED WOOD FIBER TRAIL
(ADA COMPLIANT)
- 6-FT LENGTH ARMLESS BENCH
- EXISTING TREES

PLANT LIST







LARGE TREES

	SCIENTIFIC NAME	COMMON NAME	SYMBOL	SCIENTIFIC NAME	COMMON NAME
	PSEUDOTSUGA MENZIEII	DOUGLAS FIR		ARCTOSTAPHYLOS UVA URSI	KINCKINNICK

SMALL TREES/LARGE SHRUBS

	SCIENTIFIC NAME	COMMON NAME
	ACER CIRCINATUM	VINE MAPLE
	AMELANCHIER ALNIFOLIA	SERVICEBERRY
	CRATAEGUS DOUGLASII	BLACK HAWTHORN
	CEMLERIA CERASIFORMIS	INDIAN PLUM
	SALIX HOOKERIANA	HOOKEE'S WILLOW
	SAMBUCUS RACEMOSA	RED ELDERBERRY

MASSING SHRUBS

	SCIENTIFIC NAME	COMMON NAME
	CORNUS ALBA (SERICEA)	RED-OSIER DOGWOOD
	LONICERA INVOLUCRATA	BLACK TWIN-BERRY
	RUBUS PARVIFLORUS	THIMBLEBERRY
	ROSA PISOCARPA	CLUSTERED WILD ROSE
	RUBUS SPECTABILIS	SALMONBERRY
	SPIREA DOUGLASII	WESTERN SPIREA

GROUNDCOVERS

SYMBOL	SCIENTIFIC NAME	COMMON NAME
	ARCTOSTAPHYLOS UVA URSI	KINNICKINNICK
	GAULTHERIA SHALLON	SALAL
	POLYSTICHUM MUNITUM	SWORD FERN

PLANTING PLAN: VIEWPORT 6

SCALE: 1"=20'

PLANTING PLAN: VIEWPORT 7

SCALE: 1"=20'

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9/8/2021	ASDP REVISION #2
4/12/2022	ASDP/SSDP/SV

SHEET TITLE

PLANTING PLAN

SHEET NUMBER

W3.2

ISSUE DATE

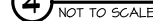
4/12/2021



NOTE:
STANDARD DETAILS PER DEVELOPER'S AGREEMENT APPENDIX G, LANDSCAPE



NOTE: 6" COMPACTED BASE COURSE PER MANUFACTURER RECOMMENDATION



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Apr 12, 2022 - 5:19pm
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PLANTING SPECIFICATIONS

PART 1: GENERAL

1.1 SEQUENCING

A. GENERAL CONSTRUCTION

1. CONTRACTOR SHALL GIVE THE PROJECT BIOLOGIST OR ECOLOGIST A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO COMMENCING CONSTRUCTION.
2. NO CONSTRUCTION WORK SHALL COMMENCE UNTIL THERE IS A MEETING BETWEEN THE CLIENT, THE PROJECT BIOLOGIST OR ECOLOGIST, THE GENERAL, CLEARING, AND/OR EARTHWORK CONTRACTORS, AND THE LANDSCAPE CONTRACTOR. THE APPROVED PLANS AND SPECIFICATIONS SHALL BE REVIEWED TO ENSURE THAT ALL PARTIES INVOLVED UNDERSTAND THE INTENT AND THE SPECIFIC DETAILS RELATED TO THE CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONSTRAINTS.
3. LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO: (1) INDEPENDENTLY VERIFY THE ACCURACY OF UTILITY LOCATIONS; AND (2) DISCOVER AND AVOID ANY UTILITIES WITHIN THE MITIGATION AREAS(S) THAT ARE NOT SHOWN, BUT WHICH MAY BE AFFECTED BY IMPLEMENTATION OF THE PLAN. SUCH AREA(S) ARE TO BE CLEARLY MARKED IN THE FIELD. THE PROJECT BIOLOGIST OR ECOLOGIST SHALL RESOLVE ANY CONFLICTS WITH THE APPROVED GRADING PLAN PRIOR TO START OF CONSTRUCTION.
4. A COPY OF THE APPROVED PLANS MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS, AND SHALL REMAIN ON SITE UNTIL PROJECT COMPLETION.
5. CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH ALL AGENCY STANDARDS, RULES, CODES, PERMIT CONDITIONS, AND/OR OTHER APPLICABLE ORDINANCES AND POLICIES.
6. THE PROJECT OWNER/APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER RELATED OR REQUIRED PERMITS PRIOR TO THE START OF CONSTRUCTION.
7. A QUALIFIED WETLAND CONSULTANT SHALL BE ON SITE, AS NECESSARY, TO MONITOR CONSTRUCTION AND APPROVE MINOR REVISIONS TO THE PLAN.
8. DURING CONSTRUCTION, THE CONTRACTOR MUST USE MATERIALS AND CONSTRUCTION METHODS THAT PREVENT TOXIC SUBSTANCES AND OTHER POLLUTANTS FROM ENTERING MITIGATION AREAS OR OTHER NATURAL WATERS OF THE STATE.
9. PREVENTATIVE MEASURES SHALL BE USED TO PROTECT EXISTING STORM DRAINAGE SYSTEMS, EXISTING UTILITIES, AND ROADS.
10. PROVIDE SEDIMENT AND EROSION CONTROLS AROUND THE PROJECT AREA PRIOR TO SOIL DISTURBANCE FROM CONSTRUCTION ACTIVITY.

- B. MITIGATION CONSTRUCTION: THE FOLLOWING PROVIDES THE GENERAL SEQUENCE OF ACTIVITIES ANTICIPATED TO BE NECESSARY TO COMPLETE THE PLANTING PORTION OF THE MITIGATION PROJECT. SOME OF THESE ACTIVITIES MAY BE CONDUCTED CONCURRENTLY AS THE PROJECT PROGRESSES.
1. CONDUCT A SITE MEETING BETWEEN THE CONTRACTOR, THE PROJECT BIOLOGIST OR ECOLOGIST, AND THE OWNER'S REPRESENTATIVE TO REVIEW THE PROJECT PLANS, STAGING/STOCKPILE AREAS, AND MATERIAL DISPOSAL AREAS.
 2. PLANT TREES AND SHRUBS AS INDICATED ON MITIGATION PLANS.
 3. PLANT STAKES (CUTTINGS).
 4. MULCH NEWLY INSTALLED PLANTS.
 5. INSTALL TEMPORARY IRRIGATION SYSTEM AND PROGRAM FOR 0.5 INCHES OF WATER EVERY 3 DAYS.
 6. INSTALL FENCING AND CRITICAL AREA PROTECTION SIGNS.

1.2 SUBMITTALS

- A. PRODUCT DATA: FURNISH THE FOLLOWING WITH EACH PLANT MATERIAL DELIVERY.
1. INVOICES INDICATING SIZES AND VARIETY OF PLANT MATERIAL.
 2. CERTIFICATES OF INSPECTION REQUIRED BY STATE AND FEDERAL AGENCIES.
- B. QUALITY CONTROL SUBMITTALS:
1. PRIOR TO DELIVERY OF MATERIALS, CERTIFICATES OF COMPLIANCE ATTESTING THAT MATERIALS MEET THE SPECIFIED REQUIREMENTS SHALL BE FURNISHED FOR THE FOLLOWING: PLANTS, TOPSOIL, FERTILIZER, AND ORGANIC MULCH. CERTIFIED COPIES OF THE MATERIAL CERTIFICATES SHALL INCLUDE THE FOLLOWING:
 - a. PLANT MATERIALS: BOTANICAL NAME, COMMON NAME, SIZE, QUANTITY BY SPECIES, AND LOCATION WHERE GROWN.
 - b. IMPORTED TOPSOIL: PARTICLE SIZE, PH, ORGANIC MATTER CONTENT, TEXTURAL CLASS, SOLUBLE SALTS, CHEMICAL AND MECHANICAL ANALYSES.
 - c. FERTILIZER: CHEMICAL ANALYSIS AND PERCENT COMPOSITION.
 - d. IMPORTED MULCH: COMPOSITION AND SOURCE.

1.3 REFERENCES

- A. SIZE AND GRADING STANDARDS: SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

1.4 QUALITY ASSURANCE

- A. WORKER'S QUALIFICATIONS: THE PERSONS PERFORMING THE PLANTING AND THEIR SUPERVISOR(S) SHALL BE PERSONALLY EXPERIENCED WITH PLANTING AND CARING FOR PLANT MATERIAL, AND SHALL HAVE BEEN REGULARLY EMPLOYED BY A COMPANY ENGAGED IN PLANTING AND CARING FOR PLANT MATERIAL FOR A MINIMUM OF 2 YEARS.
- B. PLANT MATERIAL: ALL PLANT MATERIALS SHALL BE LOCALLY GROWN OR REGIONALLY ACCLIMATIZED TO THE PACIFIC NORTHWEST.

1.5 DELIVERY, INSPECTION, STORAGE AND HANDLING

- A. DELIVERY: A DELIVERY SCHEDULE SHALL BE PROVIDED AT LEAST 10 CALENDAR DAYS PRIOR TO THE FIRST DAY OF DELIVERY. PLANT MATERIALS SHALL BE DELIVERED TO THE JOB SITE NOT MORE THAN 2 WORKING DAYS PRIOR TO THEIR RESPECTIVE PLANTING DATES.
- B. PROTECTION DURING DELIVERY: PLANT MATERIAL SHALL BE PROTECTED DURING DELIVERY TO PREVENT DESICCATION AND DAMAGE TO THE BRANCHES, TRUNK, ROOT SYSTEM, OR EARTH BALL. BRANCHES SHALL BE PROTECTED BY TYING-IN, EXPOSED BRANCHES SHALL BE COVERED DURING TRANSPORT.
- C. FERTILIZER: FERTILIZER SHALL BE DELIVERED IN MANUFACTURER'S STANDARD SIZED BAGS SHOWING WEIGHT, ANALYSIS, AND MANUFACTURER'S NAME. STORE UNDER A WATERPROOF COVER OR IN A DRY PLACE AS DESIGNATED BY THE OWNER'S REPRESENTATIVE.
- D. INSPECTION: ALL PLANT MATERIALS SHALL BE INSPECTED UPON ARRIVAL AT THE JOB SITE BY THE OWNER'S REPRESENTATIVE FOR CONFORMITY TO TYPE AND QUANTITY WITH REGARD TO THEIR RESPECTIVE SPECIFICATIONS.
- E. MULCH: A MULCH SAMPLE SHALL BE INSPECTED BY THE PROJECT BIOLOGIST OR ECOLOGIST PRIOR TO THE MULCH BEING DELIVERED TO THE SITE.

F. STORAGE

1. PLANT MATERIAL NOT INSTALLED ON THE DAY OF ARRIVAL AT THE SITE SHALL BE STORED AND PROTECTED IN DESIGNATED AREAS. PLANTS STORED ON THE PROJECT SITE SHALL BE PROTECTED FROM EXTREME WEATHER CONDITIONS BY INSULATING THE ROOTS, ROOT BALLS OR CONTAINERS WITH SANDUST, SOIL, COMPOST, BARK, OR WOODCHIPS. PLANT MATERIAL SHALL BE PROTECTED FROM DIRECT EXPOSURE TO WIND AND SUN. BARE-ROOT PLANT MATERIAL SHALL BE HEEL-ED IN. CUTTINGS AND EMERGENT PLANTS MUST BE PROTECTED FROM DRYING AT ALL TIMES AND SHALL BE HEEL-ED IN WITH MOIST SOIL OR OTHER INSULATING MATERIAL. ALL PLANT MATERIAL STORED ON-SITE SHALL BE WATERED DAILY UNTIL INSTALLED.
2. STORAGE OF OTHER MATERIALS SHALL BE IN DESIGNATED AREAS.

1.6 SCHEDULING

- A. PLANTING SEASON: INSTALL WOODY PLANTS BETWEEN OCTOBER 1 AND FEBRUARY 15 WHENEVER THE TEMPERATURE IS ABOVE 32 DEGREES F AND THE SOIL IS IN A WORKABLE CONDITION, UNLESS OTHERWISE APPROVED IN WRITINGS. CUTTINGS SHALL ONLY BE USED IF PLANTING OCCURS BETWEEN DECEMBER 1ST AND APRIL 1ST.
- B. PLANT INSTALLATION: EXCEPT FOR CONTAINER-GROWN PLANT MATERIAL, THE MAXIMUM TIME BETWEEN THE DIGGING AND INSTALLATION OF PLANT MATERIAL SHALL BE 21 DAYS. THE MAXIMUM TIME BETWEEN PLANT INSTALLATION AND MULCH PLACEMENT SHALL BE 12 HOURS.

1.7 WARRANTY

- A. WARRANTY PERIOD: THE CONTRACTOR-PROVIDED WARRANTY SHALL EXTEND FOR A PERIOD OF ONE YEAR FROM THE DATE OF PHYSICAL COMPLETION. PHYSICAL COMPLETION FOR THE WORK OF THIS SECTION IS THE DATE WHEN ALL GRADING, PLANTING, IRRIGATION, AND RELATED WORK HAS BEEN COMPLETED AND IS ACCEPTED BY THE OWNER'S REPRESENTATIVE, THE PROJECT BIOLOGIST OR ECOLOGIST, AND APPLICABLE AGENCIES.
- B. WARRANTY TERMS: CONTRACTOR'S WARRANTY SHALL INCLUDE REPLACEMENT OF PLANTS DUE TO MORTALITY (SAME SIZE AND SPECIES SHOWN ON THE DRAWINGS). PLANTS REPLACED UNDER THIS WARRANTY SHALL BE WARRANTED FOR AN ADDITIONAL YEAR AFTER REPLACEMENT.
- C. EXCEPTIONS: LOSS DUE TO EXCESSIVELY SEVERE CLIMATOLOGICAL CONDITIONS (SUBSTANTIATED BY 10-YEAR RECORDED WEATHER CHARTS), OR CASES OF NEGLIGENCE BY OWNER, OR CASES OF ABUSE/DAMAGE BY OTHERS.

PART 2: PRODUCTS AND MATERIALS

2.1 PLANTS

- A. GENERAL: ALL PLANT MATERIAL WILL CONFORM TO THE VARIETIES SPECIFIED OR SHOWN IN THE PLANT LIST(S) INDICATED ON THE MITIGATION PLANS AND BE TRUE TO BOTANICAL NAME AS LISTED IN: HITCHCOCK, C.L., AND A. CRONQUIST. 1973. FLORA OF THE PACIFIC NORTHWEST. UNIVERSITY OF WASHINGTON PRESS.
- B. SHRUBS AND TREES:
1. THE PROJECT BIOLOGIST OR ECOLOGIST SHALL EXAMINE PLANT MATERIAL PRIOR TO PLANTING; ANY MATERIAL NOT MEETING THE REQUIRED SPECIFICATION SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH LIKE MATERIAL THAT MEETS THE REQUIRED STANDARDS. PLANT MATERIAL SHALL MEET THE REQUIREMENTS OF STATE AND FEDERAL LAWS WITH RESPECT TO PLANT DISEASE AND INFESTATIONS. INSPECTION CERTIFICATES, REQUIRED BY LAW, SHALL ACCOMPANY EACH AND EVERY SHIPMENT AND SHALL BE SUBMITTED TO THE PROJECT BIOLOGIST OR ECOLOGIST UPON CONTRACTOR'S RECEIPT OF PLANT MATERIAL.
 2. PLANT MATERIALS SHALL BE LOCALLY GROWN (WESTERN WASHINGTON, WESTERN OREGON, OR WESTERN BC), HEALTHY, BUSHY, IN VIGOROUS GROWING CONDITION, AND GUARANTEED TO BE TRUE TO SIZE, NAME, AND VARIETY. IF REPLACEMENT OF PLANT MATERIAL IS NECESSARY DUE TO CONSTRUCTION DAMAGE OR PLANT FAILURE WITHIN ONE YEAR OF INSTALLATION, THE SIZES, SPECIES, AND QUANTITIES SHALL BE EQUAL TO SPECIFIED PLANTS, AS INDICATED ON THE PLANS.
 3. PLANTS SHALL BE NURSERY GROWN, WELL-ROOTED, OF NORMAL GROWTH AND CHARACTER, AND FREE FROM DISEASE OR INFESTATION. THE PROJECT BIOLOGIST OR ECOLOGIST RESERVES THE RIGHT TO REQUIRE REPLACEMENT OR SUBSTITUTION OF ANY PLANTS DEEMED UNSUITABLE.
 4. TREES SHALL HAVE UNIFORM BRANCHING, SINGLE STRAIGHT TRUNKS (UNLESS SPECIFIED AS MULTI-STEM, MULTI-CANE, OR MULTI-TRUNK), AND AN INTACT AND UNDAMAGED CENTRAL LEADER. CONTAINER STOCK SHALL HAVE BEEN GROWN IN A CONTAINER FOR AT LEAST ONE FULL GROWING SEASON AND SHALL HAVE A WELL DEVELOPED ROOT SYSTEM. PLANT MATERIAL THAT IS ROOT-BOUND OR HAS DAMAGED ROOT ZONES OR BROKEN ROOT BALLS WILL NOT BE ACCEPTED.
 5. CONIFEROUS TREES SHALL BE NURSERY GROWN, FULL AND BUSHY, WITH UNIFORM BRANCHING AND A NATURAL, NON-SHEARED FORM. ORIGINAL CENTRAL LEADER MUST BE HEALTHY AND UNDAMAGED, MAXIMUM GAP BETWEEN BRANCHING SHALL NOT EXCEED 4 INCHES, AND LENGTH OF TOP LEADER SHALL NOT EXCEED 12 INCHES.
 6. SHRUBS SHALL HAVE A MINIMUM OF THREE STEMS AND SHALL BE A MINIMUM HEIGHT OF 18 INCHES.
 7. TREES AND SHRUBS SHALL HAVE DEVELOPED ROOT AND BRANCH SYSTEMS. DO NOT PRUNE BRANCHES BEFORE DELIVERY.
 8. NATIVE PLANT CUTTINGS SHALL BE GROWN AND COLLECTED IN THE MARITIME PACIFIC NORTHWEST. CUTTINGS SHALL BE OF ONE TO TWO-YEAR-OLD WOOD, 1/2 INCH DIAMETER MINIMUM. CUTTINGS SHALL BE A MINIMUM OF 4 FEET IN LENGTH WITH 4 LATERAL BUDS EXPOSED ABOVE GROUND AFTER PLANTING. THE TOP OF EACH CUTTING SHALL BE A MINIMUM OF 1 INCH ABOVE A LEAF BUD, THE BOTTOM CUT 2 INCHES BELOW A BUD. THE BASAL ENDS OF THE CUTTINGS SHALL BE CUT AT A 45 DEGREE ANGLE AND MARKED CLEARLY SO THAT THE ROOTING END IS PLANTED IN THE SOIL. CUTTINGS MUST BE KEPT COVERED AND MOIST DURING STORAGE AND TRANSPORT, AND NO CUTTINGS SHALL BE STORED MORE THAN THREE DAYS FROM DATE OF CUTTING. CUTTINGS SHALL ONLY BE USED IF PLANTING OCCURS BETWEEN DECEMBER 1ST AND APRIL 1ST. FOR PLANTING BETWEEN APRIL 1ST AND DECEMBER 1ST, CONTAINER PLANTS SHALL BE USED.
 9. PLANTS SHALL BE FREE OF SPLITS AND CHECKS, BARK ABRASIONS, AND DISFIGURING KNOTS.
 10. FOR DECIDUOUS PLANTS, BUDS SHALL BE INTACT AND REASONABLY CLOSED AT TIME OF PLANTING, IF DORMANT.
 11. BALLED AND BURLAPPED PLANTS SHALL HOLD A NATURAL BALL. MANUFACTURED ROOT BALLS ARE UNACCEPTABLE.
 12. PLANTS SHALL CONFORM TO SIZES INDICATED ON THE PLANT SCHEDULE. PLANTS MAY BE LARGER THAN THE MINIMUM SIZES SPECIFIED.

C. SEED MIXES:

1. SEED MIXES SHALL BE PROVIDED AS DESCRIBED IN THE PLANT SCHEDULE.
- D. NOXIOUS SPECIES: ALL PLANT STOCK AND OTHER RE-VEGETATION MATERIALS SHALL BE FREE FROM THE SEED OR OTHER PLANT COMPONENTS OF ANY NOXIOUS OR INVASIVE SPECIES, AS IDENTIFIED BY THE KING COUNTY NOXIOUS WEEED CONTROL BOARD.
- E. SUBSTITUTIONS, SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT A WRITTEN REQUEST AND APPROVAL FROM THE OWNER'S REPRESENTATIVE, THE PROJECT BIOLOGIST OR ECOLOGIST, AND APPLICABLE AGENCIES.

2.2 PLANTING SOIL

- A. TOPSOIL: IF SUITABLE STOCKPILED NATIVE TOPSOIL IS NOT AVAILABLE FOR MITIGATION PLANTINGS, TOPSOIL SHALL BE OBTAINED FROM OUTSIDE SOURCES. STOCKPILED OR IMPORTED TOPSOIL SHALL BE FERTILE, FRIABLE, SANDY LOAM SURFACE SOIL, FREE OF SUBSOIL, CLAY LUMPS, BRUSH, WEEDS, ROOTS, STUMPS, STONES LARGER THAN 1 INCH IN ANY DIMENSION, LITTER, OR ANY OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH.
- B. ORGANIC CONTENT: IMPORTED TOPSOIL SHALL CONSIST OF ORGANIC MATERIALS AMENDED AS NECESSARY TO PRODUCE A BULK ORGANIC CONTENT OF AT LEAST 10 PERCENT AND NOT GREATER THAN 20 PERCENT, AS DETERMINED BY AASHTO-T-194.
- C. COMPOST: COMPOST SHALL MEET THE DEFINITION FOR COMPOSTED MATERIALS AS DEFINED BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.
- D. SOIL AMENDMENTS (BUFFER AREAS ONLY):
- D.A. FERTILIZER: WOODY PLANTINGS SHALL BE FERTILIZED WITH A SLOW-RELEASE GENERAL GRANULAR FERTILIZER (16-16-16), WITH APPLICATION RATES AS SPECIFIED BY MANUFACTURER. FERTILIZER SHALL BE APPLIED AFTER PLANTING PIT IS BACKFILLED, AND PRIOR TO APPLICATION OF MULCH. FERTILIZER SHALL NOT BE APPLIED BETWEEN NOVEMBER AND MARCH. NO FERTILIZER SHALL BE APPLIED WITHIN WETLAND AREAS.
- D.B. SOIL MOISTURE RETENTION AGENT: A SOIL MOISTURE RETENTION AGENT, SUCH AS "SOILMOIST" OR EQUAL, SHALL BE INCORPORATED INTO THE BACKFILL OF EACH PLANTING PIT, PER MANUFACTURER'S INSTRUCTIONS. NO MOISTURE RETENTION AGENT SHALL BE APPLIED WITHIN WETLAND AREAS.

2.3 MULCH

- A. ARBORIST WOOD CHIPS MUST BE COARSE GROUND WOOD CHIPS (APPROXIMATELY 1/2 INCH TO 6 INCHES ALONG THE LONGEST DIMENSION, NO PARTICLES TO BE GREATER THAN 8 INCHES LENGTH) DERIVED FROM THE MECHANICAL GRINDING OR SHREDDING OF THE ABOVE-GROUND PORTIONS OF TREES, IT MAY CONTAIN WOOD, WOOD FIBER, BARK, BRANCHES, AND LEAVES, BUT MAY NOT CONTAIN VISIBLE AMOUNTS OF SOIL, IT MUST BE FREE OF WEEDS AND WEED SEEDS INCLUDING COUNTY AND STATE LISTED NOXIOUS WEEDS AND MUST BE FREE OF INVASIVE PLANT PORTIONS CAPABLE OF RESPROUTING, INCLUDING BUT NOT LIMITED TO HORSETAIL, IVY, CLEMATIS, AND KNOTWEED. IT MAY NOT CONTAIN MORE THAN 1/2 PERCENT BY WEIGHT OF MANUFACTURED INERT MATERIAL (SUCH AS PLASTIC, CONCRETE, CERAMICS, OR METAL).

- B. ARBORIST WOOD CHIP MULCH, WHEN TESTED, MUST MEET THE FOLLOWING LOOSE VOLUME GRADATION:
- | |
|-----------------|
| 95%-100% FOR 2" |
| 0%-100% FOR 1" |
| 0%-50% FOR 5/8" |
| 0%-40% FOR 1/4" |
- C. NO PARTICLES MAY BE LONGER THAN 8 INCHES.
- D. PRIOR TO DELIVERY, THE CONTRACTOR MUST PROVIDE THE FOLLOWING UPON REQUEST:
- D.1. THE SOURCE OF THE PRODUCT AND SPECIES OF TREES INCLUDED IN IT
- D.2. A SIEVE ANALYSIS VERIFYING THE PRODUCT MEETS THE ABOVE SIZE GRADATION REQUIREMENT.
- D.3. A 5 GALLON SAMPLE OF THE PRODUCT, FOR THE PROJECT ECOLOGIST/LANDSCAPE ARCHITECT'S APPROVAL.
- E. ALL MULCHES USED IN PLANTER BEDS SHALL BE FEATHERED TO THE BASE OF THE PLANTS AND KEPT AT LEAST SIX (6) INCHES AWAY FROM THE CROWNS OF SHRUBS OR TRUNKS OF TREES.
- 2.4 MISCELLANEOUS MATERIALS
- A. STAKES, DEADMEN AND GUY STAKES: SOUND, DURABLE, WESTERN RED CEDAR, OR OTHER APPROVED WOOD, FREE OF INSECT OR FUNGUS INFESTATION.
- B. CHAIN-LOCK TREE TIES: 1/4-INCH WIDE, PLASTIC.

PART 3: EXECUTION

3.1 SOIL PREPARATION

- A. PLANTING AREA CONDITIONS: CONTRACTOR SHALL VERIFY THAT PLANT INSTALLATION CONDITIONS ARE SUITABLE WITHIN THE PROJECT AREA(S). ANY UNSATISFACTORY CONDITIONS SHALL BE CORRECTED PRIOR TO START OF WORK. WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, POOR DRAINAGE, COMPACTED SOILS, SIGNIFICANT EXISTING OR INVASIVE VEGETATION, OR OTHER OBSTRUCTIONS, CONTRACTOR SHALL NOTIFY THE PROJECT BIOLOGIST OR ECOLOGIST PRIOR TO PLANTING. THE BEGINNING OF WORK BY THE CONTRACTOR CONSTITUTES ACCEPTANCE OF CONDITIONS AS SATISFACTORY.
- B. PLANTING IN GRADED AREAS: REFERENCE DEVELOPER'S AGREEMENT, APPENDIX G FOR PLANTING DETAILS.
- C. SOIL DECOMPACTION/SCARIFICATION: SOILS IN GRADED/DISTURBED AREAS THAT ARE COMPACTED AND UNSUITABLE FOR PROPER PLANT GROWTH SHALL BE DECOMPACTED AND/OR SCARIFIED TO A MINIMUM DEPTH OF 6-INCHES BELOW TOPOSOIL INSTALLATION.

3.2 PLANTING

- A. PLANT LAYOUT: PROPOSED LOCATIONS OF TREES AND SHRUBS SHALL BE STAKED AND IDENTIFIED WITH AN APPROVED CODING SYSTEM OR BY PLACEMENT OF THE ACTUAL PLANT MATERIAL. FOR LARGE GROUPINGS OF A SINGLE SPECIES OF SHRUB, LANDSCAPE CONTRACTOR MAY STAKE THE PLANTING BOUNDARIES.
- B. OBTAIN LAYOUT APPROVAL FROM THE PROJECT BIOLOGIST OR ECOLOGIST PRIOR TO EXCAVATION OF PLANTING PITS.
- C. PLANTING PIT DIMENSIONS:
1. PIT DEPTH: NOT TO EXCEED THE ROOT BALL OR CONTAINER DEPTH.
 2. PIT WIDTH: MEASURED AT THE GROUND SURFACE, 2 TIMES THE WIDTH OF THE ROOT BALL OR CONTAINER, AS INDICATED IN TYPICAL PLANTING DETAILS.
- A. SETTING PLANTS:
1. BALLED PLANTS: SET PLANTS IN POSITION AND BACKFILL 1/2 DEPTH OF BALL. COMPLETELY REMOVE CAGE AND TWINE FROM PLANT AND FULL BURLAP DOWN AS FAR AS POSSIBLE. COMPLETE BACKFILL AND SETTLE WITH WATER. ROOT COLLAR SHALL REMAIN 1 INCH ABOVE ADJACENT GRADE.
 2. SHRUB/TREE PLANTING: SHRUB AND TREE STOCK SHALL BE PLANTED IN HAND-DUG HOLES ACCORDING TO PLANTING DETAILS SHOWN ON THE MITIGATION PLANS. SHRUB AND TREE ROOT BALLS SHALL BE SET SO THAT ROOT COLLARS ARE 1 INCH ABOVE ADJACENT GRADE. ALL BACKFILL SHALL BE GENTLY TAMPED IN PLACE.
 3. SURFACE FINISH: FORM A SAUCER AS INDICATED ON TYPICAL PLANTING DETAILS, OR AS DIRECTED. GRADE SOIL TO FORM A BASIN ON THE LOWER SIDE OF SLOPE PLANTINGS TO CATCH AND RETAIN WATER.
 4. ACTUAL PLANT SYMBOL QUANTITIES SHOWN ON THE PLANS SHALL PREVAIL OVER QUANTITIES SHOWN ON THE PLANT SCHEDULE IN THE EVENT OF A DISCREPANCY.

B. MULCHING:

1. GRADED BUFFER AREAS: ARE MULCHED PRIOR TO PLANT INSTALLATION AS DIRECTED IN THE GRADING SPECIFICATIONS.
 2. WATER PLANTS THOROUGHLY AFTER MULCHING.
- F. PRUNING: PRUNE IMMEDIATELY AFTER PLANTING ONLY AS DIRECTED BY THE PROJECT BIOLOGIST OR ECOLOGIST.
- G. TREE STAKES AND TIES: STAKE DECIDUOUS AND EVERGREEN TREES 4 FEET OR OVER IN HEIGHT WITH ONE (1) STAKE PER TREE. STAKE TREES IMMEDIATELY AFTER PLANTING. PLACE STAKE AT THE OUTER EDGE OF THE ROOTS OR BALL, IN LINE WITH THE PREVAILING WIND, AND AT A 10 DEGREE ANGLE FROM THE TREE TRUNK. LOOSELY ATTACH STAKE TO TREE USING CHAIN-LOCK TIES; TREE SHOULD BE ABLE TO SWAY.

H. INSTALLING TEMPORARY IRRIGATION

1. GENERAL REQUIREMENTS: CONTRACTOR SHALL PROVIDE AN ABOVE-GROUND TEMPORARY IRRIGATION SYSTEM CAPABLE OF FULL HEAD-TO-HEAD COVERAGE OF ALL PLANTED PROJECT AREAS. THE TEMPORARY IRRIGATION SYSTEM SHALL EITHER UTILIZE CONTROLLER AND POINT OF CONNECTION (POC) FROM THE SITE IRRIGATION SYSTEM OR SHALL INCLUDE A SEPARATE POC AND CONTROLLER WITH A BACKFLOW PREVENTION DEVICE PER WATER JURISDICTION INSPECTION AND APPROVAL. THE SYSTEM SHALL BE ZONED TO PROVIDE OPTIMAL PRESSURE AND UNIFORMITY OF COVERAGE, AS WELL AS SEPARATION BETWEEN AREAS OF FULL SUN AND SHADE AND FOR SLOPES IN EXCESS OF 5 PERCENT. THE SYSTEM SHALL BE OPERATIONAL FOR A MINIMUM OF THE FIRST TWO GROWING SEASONS AFTER PLANTING (THE FIRST TWO YEARS OF THE PERFORMANCE MONITORING PERIOD), OR LONGER IF REQUIRED TO ENSURE PROPER PLANT ESTABLISHMENT. THE SYSTEM SHALL BE REMOVED UPON FINAL APPROVAL OF THE MITIGATION PROJECT AT THE END OF THE PERFORMANCE MONITORING PERIOD.
2. SYSTEM DESIGN AND MATERIALS: ELECTRONIC VALVES SHALL BE THE SAME MANUFACTURER AS THOSE USED FOR THE SITE IRRIGATION SYSTEM, OR SHALL BE RAIN BIRD FEB SERIES OR EQUAL. IF SYSTEM IS NOT CONTIGUOUS WITH THE SITE SYSTEM, VALVES SHALL BE SIZED TO ACCOMMODATE PRESSURE AND ZONE COMPLETION REQUIREMENTS OF THE SYSTEM AND SHALL BE INSTALLED BELOW GRADE IN CARSON (OR EQUAL) VALVE BOXES. WIRING SHALL BE INSULATED MULTI-STRAND, TAPED TO THE MAIN AT 6-INCH INTERVALS WITH DUCT TAPE WRAPS. ON-GRADE MAIN AND LATERAL LINES SHALL BE CLASS 200 PVC BELL PIPE WITH SOLVENT WELDED FITTINGS, SECURED IN-PLACE WITH WIRE STAPLES WHERE NECESSARY ON SLOPED AREAS. LINES SHALL BE PLACED 12 INCHES BELOW GRADE IN 4 INCH PCV SLEEVES WHERE VEHICULAR OR MAINTENANCE ACCESS IS NEEDED ACROSS LINES TO THE PROJECT AREA(S). MAXIMUM MAIN LINE SIZE SHALL BE 1 1/2 INCHES AND MAY BE LOOPEO BACK TO THE POC TO REDUCE PRESSURE LOSS. LATERAL LINES SHALL BE SIZED IN DECREASING DOWNSTREAM ORDER PER RAIN BIRD DESIGN STANDARDS. THE MINIMUM LATERAL SIZE SHALL BE 3/4 INCH. HEADS SHALL BE ROTOR OR IMPACT TYPE INSTALLED 4 FEET ABOVE FINISHED GRADE ON 2-INCH DIAMETER WOOD TREE STAKES. STAKES SHALL BE SECURE IN THE GROUND, EMBEDDED TO A MINIMUM DEPTH OF 24 INCHES. HEADS AND 3/4 INCH PVC RISERS SHALL BE SECURED TO STAKES WITH CONSTRICTING HOSE CLAMPS, NO RUNNY PIPE SHALL BE USED. HEADS AND NOZZLES SHALL PROVIDE MATCHED PRECIPITATION RATES FOR EACH ZONE.
3. PROGRAMMING: IRRIGATION SYSTEM SHALL BE PROGRAMMED TO PROVIDE APPROXIMATELY 1/2 INCH OF WATER EVERY THREE DAYS DURING THE DRY SEASON (APPROXIMATELY JUNE 15TH TO OCTOBER 15TH). IRRIGATION AMOUNTS IN ZONES LOCATED IN THE SHADE OR ON STEEP SLOPES MAY BE REDUCED IF APPROVED BY THE PROJECT BIOLOGIST OR ECOLOGIST OR THE PROJECT ECOLOGIST/BIOLOGIST.

4. WATER AND POWER SUPPLY FOR SYSTEM: THE OWNER SHALL PROVIDE WATER AND ELECTRICITY FOR THE SYSTEM.
5. AS-BUILT DRAINAGE: A CHART DESCRIBING THE LOCATION OF ALL INSTALLED OR OPEN ZONES AND CORRESPONDING CONTROLLER NUMBERS SHALL BE PROVIDED BY THE CONTRACTOR AND PLACED INSIDE THE CONTROLLER AND GIVEN TO THE OWNER'S REPRESENTATIVE.
6. WARRANTY: THE IRRIGATION SYSTEM SHALL INCLUDE A ONE-YEAR WARRANTY AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FROM THE DATE OF FINAL PROJECT ACCEPTANCE. THE WARRANTY SHALL INCLUDE SYSTEM ACTIVATION AND WINTERIZATION FOR THE FIRST YEAR AND IMMEDIATE REPAIR OF THE SYSTEM IF IT IS OBSERVED TO BE MALFUNCTIONING.
7. CRITICAL AREAS FENCE AND SIGNS: INSTALL CRITICAL AREAS FENCE AND CRITICAL AREAS SIGNS WHERE SHOWN ON PLANS.
8. RESTORE EXISTING NATURAL OR LANDSCAPED AREAS:
 1. EXISTING NATURAL OR LANDSCAPED AREAS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, UNLESS IMPROVEMENTS OR MODIFICATIONS ARE SPECIFIED FOR THOSE AREAS.
 2. CONTRACTOR SHALL EXERCISE CARE TO PREVENT INJURY TO THE TRUNK, ROOTS, OR BRANCHES OF ANY TREES OR SHRUBS THAT ARE TO REMAIN. ANY LIVING, WOODY PLANT THAT IS DAMAGED DURING CONSTRUCTION SHALL BE TREATED WITHIN 24 HOURS OF OCCURRENCE, AND THE PROJECT BIOLOGIST OR ECOLOGIST SHALL BE NOTIFIED IMMEDIATELY OF THE INCIDENT. DAMAGE TREATMENT SHALL INCLUDE EVENLY CUTTING BROKEN BRANCHES, BROKEN ROOTS, AND DAMAGED TREE BARK. INJURED PLANTS SHALL BE THOROUGHLY WATERED AND ADDITIONAL MEASURES SHALL BE TAKEN, AS APPROPRIATE, TO AID IN PLANT SURVIVAL.
9. FINAL INSPECTION AND APPROVAL: THE CONTRACTOR SHALL NOTIFY THE PROJECT BIOLOGIST OR ECOLOGIST IN WRITING AT LEAST TEN DAYS PRIOR TO THE REQUESTED DATE OF A PROJECT COMPLETION INSPECTION. IF ITEMS ARE TO BE CORRECTED, A PUNCH LIST SHALL BE PREPARED BY THE PROJECT BIOLOGIST OR ECOLOGIST AND SUBMITTED TO THE CONTRACTOR FOR COMPLETION. AFTER PUNCH LIST ITEMS HAVE BEEN COMPLETED, THE PROJECT BIOLOGIST OR ECOLOGIST SHALL REVIEW THE PROJECT AGAIN FOR FINAL ACCEPTANCE OF PLAN IMPLEMENTATION. IF PUNCH LIST ITEMS REQUIRE PLANT REPLACEMENT, AND THE INSPECTION OCCURS OUTSIDE OF A SUITABLE PLANTING SEASON, PLANTS SHALL BE REPLACED DURING THE NEXT PLANTING SEASON.
10. AS-BUILT PLAN: CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT LOCATIONS AND QUANTITIES ON THE PLANT SCHEDULE WITH THOSE REPRESENTED AS SYMBOLS ON THE MITIGATION PLANS. CONTRACTOR SHALL KEEP A COMPLETE SET OF PRINTS AT THE JOB SITE DURING CONSTRUCTION FOR THE PURPOSE OF RECORDING IN-THE-FIELD CHANGES OR MODIFICATIONS TO THE APPROVED PLANS. THIS INFORMATION SHALL BE UPDATED ON A DAILY BASIS AS NECESSARY.

PART 4: ONE YEAR CONTRACTOR WARRANTY

- NOTE: THESE MAINTENANCE SPECIFICATIONS APPLY TO THE ONE-YEAR CONTRACTOR WARRANTY PERIOD ONLY. IF THIS MITIGATION PROJECT REQUIRES LONG-TERM PERFORMANCE MONITORING, AS DETERMINED BY THE GOVERNING JURISDICTION, THE MAINTENANCE SPECIFICATIONS AND GUIDELINES ASSOCIATED WITH THE PERFORMANCE MONITORING STANDARDS ARE INCLUDED IN THE MITIGATION REPORT ASSOCIATED WITH THIS PLAN SET, AND MAY ALSO BE INCLUDED ON A SEPARATE PLAN SHEET IF REQUIRED.
- A. REVIEW OF MAINTENANCE REQUIREMENTS: CONTRACTOR SHALL REVIEW LANDSCAPE MAINTENANCE RECOMMENDATIONS WITH A QUALIFIED WETLAND BIOLOGIST FROM THE PROJECT BIOLOGIST OR ECOLOGIST WHO IS FAMILIAR WITH THE STATED GOALS AND OBJECTIVES OF THE PROJECT PLAN.
- B. MAINTENANCE ACTIVITIES: CONTRACTOR SHALL MAINTAIN TREES AND SHRUBS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE IN ORDER TO MAINTAIN HEALTHY GROWTH AND HABITAT DIVERSITY. MAINTENANCE ACTIVITIES SHALL INCLUDE, BUT ARE NOT LIMITED TO: (A) REPLACING PLANTS DUE TO MORTALITY, (B) TIGHTENING AND REPAIRING TREE STAKES, (C) RESETTling PLANTS TO PROPER GRADES AND UPRIGHT POSITIONS, AND (D) CORRECTING DRAINAGE PROBLEMS AS REQUIRED.
- C. IRRIGATION:
1. SYSTEM MAINTENANCE AND REPAIR: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTIVATING, WINTERIZING, MAINTAINING, AND CONTINUALLY VERIFYING THE ADEQUATE OPERATION OF THE TEMPORARY IRRIGATION SYSTEM FOR THE FIRST GROWING SEASON FOLLOWING INSTALLATION. SYSTEM FUNCTION (INCLUDING ELECTRONIC VALVE AND CONTROLLER FUNCTION) SHALL BE INSPECTED FOR OPERATION AND FULL COVERAGE OF ALL PLANTED AREAS DURING EACH MAINTENANCE VISIT. THE SYSTEM SHALL BE REPAIRED IMMEDIATELY IF FOUND TO BE DAMAGED OR MALFUNCTIONING. SYSTEM SHALL BE PROGRAMMED AND MAINTAINED TO PROVIDE APPROXIMATELY 1/2 INCH OF WATER EVERY THREE DAYS.
- D. STAKE AND TIE REMOVAL: CONTRACTOR SHALL REMOVE TREE STAKES AND TIES ONE YEAR AFTER INSTALLATION, UNLESS RECEIVING WRITTEN PERMISSION FROM THE PROJECT BIOLOGIST OR ECOLOGIST TO DELAY REMOVAL OF STAKES AND TIES
- E. EROSION AND DRAINAGE: CONTRACTOR SHALL CORRECT EROSION AND DRAINAGE PROBLEMS AS REQUIRED.
- F. IRRIGATION SYSTEM REMOVAL: CONTRACTOR SHALL REMOVE IRRIGATION SYSTEM APPROXIMATELY 2 YEARS AFTER PLANTING, OR AS APPROVED BY THE PROJECT BIOLOGIST OR ECOLOGIST.
- G. FINAL MAINTENANCE INSPECTION AND APPROVAL: UPON COMPLETION OF THE ONE-YEAR MAINTENANCE PERIOD, AN INSPECTION BY THE PROJECT BIOLOGIST OR ECOLOGIST SHALL BE CONDUCTED TO CONFIRM THAT THE PROJECT AREA WAS PROPERLY MAINTAINED. IF ITEMS ARE TO BE CORRECTED, A PUNCH LIST SHALL BE PREPARED AND SUBMITTED TO THE CONTRACTOR FOR CORRECTION. UPON CORRECTION OF THE PUNCH LIST ITEMS, THE PROJECT SHALL BE REVIEWED BY THE PROJECT BIOLOGIST OR ECOLOGIST FOR FINAL CLOSEOUT OF PLAN IMPLEMENTATION.
- H. THE CONTRACTOR SHALL PROVIDE MANUAL WATERING TO ALL UNIRRIGATED MITIGATION PLANTINGS BETWEEN JUNE 15TH AND OCTOBER 15TH. SUPPLEMENTAL WATERING MAY ALSO BE REQUIRED IF HOT, DRY WEATHER OCCURS EITHER BEFORE OR AFTER THESE DATES. DURING THE FIRST YEAR AFTER INSTALLATION, PLANTINGS SHALL BE WATERED A MINIMUM OF ONE INCH PER WEEK. WATERING FREQUENCY MAY BE INCREASED AS NECESSARY DURING PROLONGED PERIODS OF HOT, DRY WEATHER TO PREVENT PLANT MORTALITY.

NOT FOR CONSTRUCTION
THESE PLANS HAVE BEEN
SUBMITTED TO THE APPROPRIATE
AGENCIES FOR REVIEW AND
APPROVAL. UNTIL APPROVED,
THESE PLANS ARE:
SUBJECT TO REVISION



NOTES

1. SURVEY PROVIDED BY BUSH, ROED, & HITCHINGS INC., 2004 MINOR AVE E SEATTLE, WA 98102-3513, (206) 323-4144.
2. SITE PLAN PROVIDED BY KPFF, 1601 5TH AVE SUITE 1600 SEATTLE, WA 98101, (206) 622-5822.
3. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREA REPORT PREPARED BY TALASAEA CONSULTANTS IN MAY, 2021.



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PROJECT

**HYLA CROSSING
PUMPED STORMWATER
DISCHARGE**

ISSAQUAH, WA

OWNER



1595 NW GILMAN BLVD
ISSAQUAH WA, 98027

PROFESSIONAL SEAL

DESIGN TEAM	
EP, AO	
PRINCIPAL	
BS	
PROJECT MANAGER	
EP	
PROJECT ARCHITECT	
EP	
DRAWN BY	
FH	
CHECKED BY	
EP	
DRAWING SET DESCRIPTION	

ASDP/SSDP/SV
RESUBMITTAL

REVISIONS

No.	DATE	DESCRIPTION
1	10/3/2019	30% CD
2	4/13/2020	ASDP
3	4/12/2021	ASDP REVISION #1
4	9/8/2021	ASDP REVISION #2
5	4/12/2022	ASDP/SSDP/SV

SHEET TITLE

PLANTING
SPECIFICATIONS

SHEET NUMBER

W4.0

ISSUE DATE

4/12/2021

Apr 12, 2022 - 5:19pm
Xref Filename: Z:\BAMING\1700-1799\TAU1775\Plans\TAU-1775_WP_2022-04.dwg
User: kpcsd-1bb
Xref: kpcsd-1bb

PERFORMANCE MONITORING OBJECTIVES

PERFORMANCE MONITORING OBJECTIVES

FOR 10 YEARS AS REQUIRED BY US ARMY CORPS OF ENGINEERS

MITIGATION AREAS:

- WETLAND E RESTORATION: 28,716 SF
- WETLAND E BUFFER RESTORATION: 13,025 SF
- TIBBETTS CREEK BUFFER ENHANCEMENT: 34,391 SF

PERFORMANCE OBJECTIVES:

OBJECTIVE A: THE WETLAND E RESTORATION AREA MUST EXHIBIT WETLAND HYDROLOGY. WETLAND CONDITIONS WILL BE VERIFIED BY THE PRESENCE OF HYDROLOGIC INDICATORS.

PERFORMANCE STANDARD A1: AFTER CONSTRUCTION, THE RESTORED WETLAND AREAS SHALL EXHIBIT 14 OR MORE CONSECUTIVE DAYS OF PONDING OR A WATER TABLE 12 INCHES OR LESS BELOW THE SOIL SURFACE DURING THE GROWING SEASON IN EACH YEAR OF NORMAL RAINFALL. EVIDENCE OF WETLAND HYDROLOGY MAY INCLUDE EVIDENCE OF SATURATED SOIL CONDITIONS (I.E., SIGNS OF PONDING, A WATER TABLE NEAR THE SURFACE, WATER MARKS, WATER-STAINED LEAVES, OR OXIDIZED RHIZOSPHERES). IN ADDITION, A COMBINATION OF NATIVE OR NATURALIZED WOODY AND HERBACEOUS VEGETATION THAT IS PREDOMINANTLY FAC OR WETTER WILL COVER THE WETLAND AREAS. HYDROLOGY SHALL BE MONITORED, AT A MINIMUM, DURING YEARS 1, 2, 3, 5, 7, AND 10.

OBJECTIVE B: CREATE STRUCTURAL AND PLANT SPECIES DIVERSITY IN ALL OF THE MITIGATION AREAS.

PERFORMANCE STANDARD B1: PERCENT SURVIVAL OF ALL INSTALLED SPECIES MUST BE AT LEAST 100% AT THE END OF YEAR 1 (PER CONTACTOR WARRANTY), AND AT LEAST 80% AT THE END OF YEARS 2 AND 3. SURVIVAL WILL NOT BE TRACKED AFTER YEAR 3 UNLESS A CONTINGENCY MEASURE IS IMPLEMENTED THAT REQUIRES NEW PLANTINGS.

PERFORMANCE STANDARD B2: AT LEAST 8 SPECIES OF DESIRABLE NATIVE PLANT SPECIES WILL BE PRESENT IN THE WETLAND RESTORATION, BUFFER RESTORATION, AND BUFFER ENHANCEMENT AREAS. SPECIES MAY BE COMPRISED OF BOTH PLANTED AND NATURALLY COLONIZED VEGETATION.

PERFORMANCE STANDARD B3: COVERAGE OF HERBACEOUS VEGETATION WITHIN THE DESIGNATED AREAS WHERE NO WOODY VEGETATION HAS ALSO BEEN PLANTED SHALL BE AT LEAST 30% BY THE END OF YEAR 1, 50% BY THE END OF YEAR 5, AND 65% BY THE END OF YEARS 5, 7, AND 10. THIS PERFORMANCE STANDARD DOES NOT APPLY TO AREAS WHERE SHRUB OR FOREST IS THE TARGETED COVER TYPE.

PERFORMANCE STANDARD B4: TOTAL PERCENT AREAL WOODY PLANT COVERAGE MUST BE AT LEAST 35% BY THE END OF YEAR 4, 50% BY THE END OF YEAR 5, 55% BY THE END OF YEAR 7, AND 65% BY THE END OF YEAR 10. THIS PERFORMANCE STANDARD ONLY APPLIES WHERE WOODY SPECIES ARE PROPOSED FOR PLANTING.

WOODY PLANT COVERAGE MAY BE COMPRISED OF BOTH PLANTED AND RECOLONIZED NATIVE SPECIES; HOWEVER, AT NO TIME DURING THE MONITORING PERIOD SHALL A RECOLONIZED NATIVE SPECIES (E.G., RED ALDER) COMPRISE MORE THAN 35% OF THE TOTAL WOODY PLANT COVER IN THIS COMMUNITY.

OBJECTIVE C: REMOVE AND CONTROL INVASIVE PLANTS TO LESS THAN 10% COVER IN MITIGATION AREAS.

PERFORMANCE STANDARD C1: AFTER CONSTRUCTION AND THROUGHOUT THE 10-YEAR CORPS MONITORING PERIOD, AREAL COVERAGE BY NON-NATIVE INVASIVE PLANT SPECIES SHALL BE MAINTAINED AT 10% OR LESS THROUGHOUT THE MITIGATION SITE. THESE STANDARDS APPLY TO DITCH, RIPARIAN, AND UPLAND BUFFER AREAS COMBINED. THESE SPECIES INCLUDE, BUT ARE NOT LIMITED TO: SCOT'S BROOM, HIMALAYAN AND EVERGREEN BLACKBERRY, PURPLE LOOSESTRIPE, HEDGE BINDWEED, AND BITTERSWEET NIGHTSHADE.

PERFORMANCE STANDARD C2: PER CORPS REQUIREMENTS, AFTER CONSTRUCTION AND THROUGHOUT THE 10-YEAR CORPS MONITORING PERIOD, NON-NATIVE INVASIVE KNOTWEED SPECIES (SUCH AS POLYGONUM CUSPIDATUM, P. POLYSTACHYUM, P. SACHALINENSE, AND P. BOHEMICUM) WILL BE ERADICATED THROUGHOUT THE MITIGATION AREAS (INCLUDING BUFFER AREAS) FOR A TOTAL COVER OF 0%.

MONITORING SCHEDULE

PERFORMANCE MONITORING OF THE MITIGATION AREAS WILL BE CONDUCTED ACCORDING TO ALL APPLICABLE CODE/REGULATORY REQUIREMENTS AND PERMIT CONDITIONS. MONITORING WILL BE CONDUCTED IN ACCORDANCE WITH IMC 18.10.500 FOR A MINIMUM OF FIVE (5) YEARS FOR THE CITY OF ISSAQUAH (CITY) AND 10 YEARS FOR THE ARMY CORPS OF ENGINEERS (CORPS). MONITORING WILL BE CONDUCTED ACCORDING TO THE SCHEDULE PRESENTED BELOW, AND WILL BE PERFORMED BY A QUALIFIED BIOLOGIST OR ECOLOGIST FROM TALASAEA CONSULTANTS, INC.

PROJECTED SCHEDULE FOR PERFORMANCE MONITORING AND MAINTENANCE EVENTS

YEAR	DATE	MAINTENANCE REVIEW	PERFORMANCE MONITORING	REPORT DUE TO AGENCIES
YEAR 0, AS-BUILT AND BASELINE ASSESSMENT	FALL	X	X	X
1	SPRINGS	X	X	
	FALL	X	X	X
2	SPRINGS	X	X	
	FALL	X	X	X
3	SPRINGS	X		
	FALL	X	X	X
4	SPRINGS	X		
	FALL	X	X	
5	SPRING	X		
	FALL	X	X	X*
6	SPRINGS	X		
	FALL			
7	SPRINGS	X		
	FALL		X	X*
8	SPRINGS	X		
	FALL			
9	SPRINGS	X		
	FALL			
10	SPRINGS	X		
	FALL	X	X	X**

- * OBTAIN FINAL APPROVAL TO FACILITATE BOND RELEASE FROM THE CITY (PRESUMES PERFORMANCE CRITERIA AREA MET).
- ** OBTAIN FINAL APPROVAL FROM CORPS (PRESUMES PERFORMANCE CRITERIA ARE MET).

MONITORING REPORT WILL INCLUDE:

- 1) PROJECT OVERVIEW
- 2) MITIGATION PERFORMANCE STANDARDS SUMMARY
- 3) SUMMARY DATA, INCLUDING DATE OF INSPECTION, LOCATION, DATE PLANTING WAS COMPLETED, BRIEF NARRATIVE ADDRESSING CONTEXT OF WATERBODIES AND LAND USE, METHODS OF EVALUATION, YEAR NUMBER OF THE REQUIRED 10 YEARS.
- 4) MAPS, PLANS AND PHOTOS TO SUPPORT SUMMARY DATA; PHOTOGRAPHS WILL BE FROM ESTABLISHED PHOTO POINTS FROM TIME OF COMPLETED INSTALLATION.
- 5) CONCLUSIONS: A GENERAL STATEMENT DESCRIBING WHETHER THE PERFORMANCE STANDARDS ARE BEING MET AND A BRIEF EXPLANATION IF THEY ARE NOT BEING MET, WITH REMEDIAL ACTIONS BEING TAKEN.

IF THE PERFORMANCE CRITERIA ARE MET, MONITORING FOR THE CITY WILL CEASE AT THE END OF YEAR FIVE, UNLESS OBJECTIVES ARE MET AT AN EARLIER DATE AND THE CITY ACCEPTS THE MITIGATION PROJECT AS SUCCESSFULLY COMPLETED.

MONITORING METHODS

VEGETATION MONITORING METHODS MAY INCLUDE COUNTS; PHOTO-POINTS; RANDOM SAMPLING; SAMPLING PLOTS, QUADRATS, OR TRANSECTS; STEM DENSITY; VISUAL INSPECTION; AND/OR OTHER METHODS DEEMED APPROPRIATE BY THE CITY AND THE BIOLOGIST/ECOLOGIST. VEGETATION MONITORING COMPONENTS SHALL INCLUDE GENERAL APPEARANCE, HEALTH, MORTALITY, COLONIZATION RATES, PERCENT COVER, PERCENT SURVIVAL, VOLUNTEER PLANT SPECIES, AND INVASIVE WEED COVER.

PERMANENT VEGETATION SAMPLING PLOTS, QUADRATS, AND/OR TRANSECTS WILL BE ESTABLISHED AT SELECTED LOCATIONS TO ADEQUATELY SAMPLE AND REPRESENT ALL OF THE PLANT COMMUNITIES WITHIN THE MITIGATION PROJECT AREAS. THE NUMBER, EXACT SIZE, AND LOCATION OF TRANSECTS, SAMPLING PLOTS, AND QUADRATS WILL BE DETERMINED AT THE TIME OF THE BASELINE ASSESSMENT.

PERCENT AREA COVER OF WOODY VEGETATION (FORESTED AND/OR SCRUB-SHRUB PLANT COMMUNITIES) WILL BE EVALUATED THROUGH THE USE OF POINT-INTERCEPT SAMPLING METHODOLOGY. USING THIS METHODOLOGY, A TAPE WILL BE EXTENDED BETWEEN TWO PERMANENT MARKERS AT EACH END OF AN ESTABLISHED TRANSECT. TREES AND SHRUBS INTERCEPTED BY THE TAPE WILL BE IDENTIFIED, AND THE INTERCEPT DISTANCE RECORDED. PERCENT COVER BY SPECIES WILL THEN BE CALCULATED BY ADDING THE INTERCEPT DISTANCES AND EXPRESSING THEM AS A TOTAL PROPORTION OF THE TAPE LENGTH.

THE ESTABLISHED VEGETATION SAMPLING LOCATIONS WILL BE MONITORED AND COMPARED TO THE BASELINE DATA DURING EACH PERFORMANCE MONITORING EVENT TO AID IN DETERMINING THE SUCCESS OF PLANT ESTABLISHMENT.

PERCENT SURVIVAL OF SHRUBS AND TREES WILL BE EVALUATED IN A 10-FOOT-WIDE STRIP ALONG EACH ESTABLISHED TRANSECT. THE SPECIES AND LOCATION OF ALL SHRUBS AND TREES WITHIN THIS AREA WILL BE RECORDED AT THE TIME OF THE BASELINE ASSESSMENT AND WILL BE EVALUATED DURING EACH MONITORING EVENT TO DETERMINE PERCENT SURVIVAL.

- PHOTO DOCUMENTATION
 - LOCATIONS WILL BE ESTABLISHED WITHIN THE MITIGATION AREAS FROM WHICH PANORAMIC PHOTOGRAPHS WILL BE TAKEN THROUGHOUT THE MONITORING PERIOD. THESE PHOTOGRAPHS WILL DOCUMENT GENERAL APPEARANCE AND RELATIVE CHANGES WITHIN THE PLANT COMMUNITIES. A REVIEW OF PHOTOS OVER TIME WILL PROVIDE A SEMI-QUANTITATIVE REPRESENTATION OF THE SUCCESS OF THE PLANTING PLAN. VEGETATION SAMPLING PLOTS AND PHOTO-POINT LOCATIONS WILL BE SHOWN ON A MAP AND SUBMITTED WITH THE BASELINE ASSESSMENT REPORT AND YEARLY PERFORMANCE MONITORING REPORTS.
- WATER QUALITY AND SITE STABILITY
 - WATER QUALITY WILL BE ASSESSED QUALITATIVELY UNLESS IT IS EVIDENT THAT THERE IS A SERIOUS PROBLEM. IN SUCH AN EVENT, WATER QUALITY SAMPLES WILL BE TAKEN AND ANALYZED IN A LABORATORY FOR SUSPECTED PARAMETERS. QUALITATIVE ASSESSMENTS OF WATER QUALITY INCLUDE:
 - OIL SHEEN OR OTHER SURFACE FILMS,
 - ABNORMAL COLOR OR ODOR OF WATER,
 - STRESSED OR DEAD VEGETATION OR AQUATIC FAUNA,
 - TURBIDITY, AND
 - ABSENCE OF AQUATIC FAUNA.
 - OBSERVATIONS WILL BE MADE OF THE GENERAL STABILITY OF SOILS IN THE MITIGATION AREAS DURING EACH MONITORING EVENT. ANY EROSION OF SOILS OR SOIL SLUMPING WILL BE RECORDED AND CORRECTIVE MEASURES WILL BE TAKEN.

NOT FOR CONSTRUCTION
THESE PLANS HAVE BEEN
SUBMITTED TO THE APPROPRIATE
AGENCIES FOR REVIEW AND
APPROVAL. UNTIL APPROVED,
THESE PLANS ARE:
SUBJECT TO REVISION



Know what's below.
Call before you dig.

NOTES

1. SURVEY PROVIDED BY BUSH, ROED, & HITCHINGS INC., 2009 MINOR AVE E SEATTLE, WA 98102-3513, (206) 323-4144.
2. SITE PLAN PROVIDED BY KPFF, 1601 5TH AVE SUITE 1600 SEATTLE, WA 98101, (206) 622-5822.
3. SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN MAY, 2021.

kpff

1601 5th Avenue, Suite 1600
Seattle, WA 98101
206.622.5822
www.kpff.com

CONSULTANT



TALASAEA
CONSULTANTS, INC.

Resource and
Environmental Planning
16009 Bear Creek Road Northeast
Woodinville, Washington 98077
Bus (425) 961-7500 • Fax (425) 961-7549

PROJECT

**HYLA CROSSING
PUMPED STORMWATER
DISCHARGE**

ISSAQUAH, WA

OWNER



1595 NW GILMAN BLVD
ISSAQUAH WA, 98027

PROFESSIONAL SEAL

DESIGN TEAM

EP, AO

PRINCIPAL

BS

PROJECT MANAGER

EP

PROJECT ARCHITECT

EP

DRAWN BY

FH

CHECKED BY

EP

DRAWING SET DESCRIPTION

**ASDP/SSDP/SV
RESUBMITTAL**

REVISIONS

No.	DATE	DESCRIPTION
1	10/3/2019	30% CD
2	4/1/2020	ASDP
3	4/12/2021	ASDP REVISION #1
4	9/8/2021	ASDP REVISION #2
5	4/12/2022	ASDP/SSDP/SV

SHEET TITLE

**PERFORMANCE
MONITORING
OBJECTIVES**

SHEET NUMBER

W5.0

ISSUE DATE

4/12/2021

DECLARATION OF SERVICE OF MAILING

I, BRIAN D. MOSS, state and declare as follows:

That on the 6th day of October, 2021, I deposited in the mail of the United States a sealed envelope containing a public hearing notice, decision or recommendation with postage prepaid addressed to the adjacent property and/or parties of record in the below entitled application or petition:

Notice of Environmental Neighborhood meeting
PS19-00006; SH021-00010 - Hyla Crossing stormwater Discharge
- Vicinity map; Attached plans

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Signed on the 6th day of October, 2021 at Issaquah, Washington.

BRIAN D. MOSS

Printed Name

Brian D. Moss

Signature

Notice of Environmental Neighborhood Meeting



PROJECT NAME: Hyla Crossing Stormwater Discharge
FILE NO: PRJ19-00006; SHO21-00010
APPLICANT: Kristi Tripple
1595 NW Gilman Blvd Ste 1
Issaquah, WA 98027

NEIGHBORHOOD MEETING INFORMATION

DATE: Tuesday October 19, 2021
TIME: 6:30 p.m.
LOCATION: Virtual Meeting
Join by Computer: issaquahwa.gov/EnvironmentallImpact

ENVIRONMENTAL NEIGHBORHOOD MEETING

The City is hosting a neighborhood meeting to afford the community an opportunity to understand the proposal with particular focus on critical areas, generate discussion, and raise issues before a decision is rendered. City Staff along with the Applicant's technical area experts will be in attendance to answer questions and address concerns about the project.

Required Studies to be discussed: Wetland Study, Mitigation Plan

PROJECT INFORMATION

Project Description: To construct a new pipeline that will convey stormwater from a new pump station to a nearshore outfall next to Lake Sammamish. The 24-inch pipeline will total approximately 2,897 linear feet long and convey water to Lake Sammamish, through a wetland in Sammamish Cove Park. Because the pipe alignment and outfall location do not meet the city's shoreline master Program, a Shoreline Variance is being sought. (See attached plans)

Location: Sammamish Cove Park (See Vicinity Map)

Size of Subject Area in Acres: 18.21 Acres

Required Permits: Shoreline Substantial Development, Shoreline Variance, Right-of-Way, Flood Hazard

Required Studies: Critical Area Studies for wetlands

PUBLIC MEETING

- Input from the public will be documented in the permit file and used to finalize the critical area studies for the project. A summary of the meeting will be provided to the Environmental Board for their consideration related to future code changes.
- The decision, once rendered, is appealable.

Issaquah Municipal Code (IMC), Comprehensive Plan
(Online at: issaquahwa.gov/codes and plans)

PUBLIC MEETING

Due to the Governor's Proclamation 20-28 related to the COVID-19 emergency and open public meetings, this meeting is being held remotely.

MEETING SIGN-UP

To view the meeting, go to issaquahwa.gov/EnvironmentallImpact open the agenda and then follow these steps:

1. Enter attendee's name
2. Enter attendee's email address
3. Click Join Now

MEETING PACKET AND MATERIALS

A memorandum describing the critical areas of the site which will be discussed at the meeting are available by visiting the following: issaquahwa.gov/EnvironmentallImpact

PUBLIC COMMENT

Written comments are accepted until October 19, 2021, or until the decision is rendered:

Community Planning and Development Department
P.O. Box 1307
Issaquah, WA 98027

Or by e-mail to the Project Planner noted below.

MORE PROJECT INFORMATION

Other key application documents are available at the City's website: issaquahwa.gov/development. Click on the parcel, select "View Related Documents and Permits", and then click on "Related Documents" tab to see the available submittals.

CONTINUED PUBLIC NOTIFICATION

To receive further public notices on this project please provide your name, address, and e-mail to the Project Planner and request to become a Party of Record.

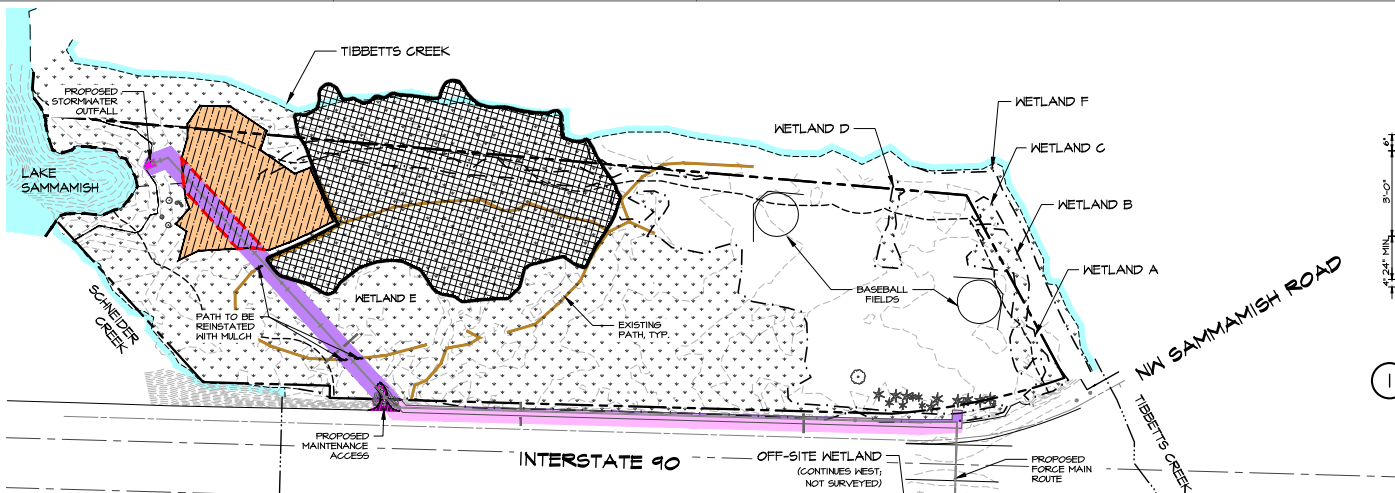
Notice is required to be provided to property owners within 300 feet of the site and to Parties of Record. Please share this notice with others in your neighborhood who may be interested in this project. Property owner, Mortgagee, Lien Holder, Vendor, Seller, etc., please share this notice with tenants and others who may be interested in this project.

CITY CONTACT INFORMATION

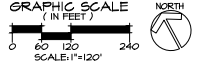
Project Planner: Doug Yormick
Phone Number: 425-837-3083
E-Mail: dougy@issaquahwa.gov

Community Planning & Development Department:
Phone Number: 425-837-3100
E-Mail: CPD@issaquahwa.gov

10/15/2021 10:02:17 AM \\p01\proj\1773\1773.dwg User: jkay Date: 10/15/2021 Time: 10:02:17 AM Plot: 10/15/2021 10:02:17 AM Plotter: HP DesignJet T1100 Plot Size: 36x48 inches Plot Scale: 1"=60' Plot Orientation: Landscape Plot Status: Success



PROPOSED SITE PLAN, IMPACTS & MITIGATION OVERVIEW PLAN



PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLANDS
- ORDINARY HIGH WATER MARK
- DIRECTION OF FLOW
- LAKE EDGE
- EXISTING CONTOUR (ODD)
- POST-CONSTRUCTION BUFFER SPLIT-RAIL FENCE
- NSPA SIGN
- EXISTING TREES
- PROPOSED MAINTENANCE ACCESS (GRASSPAVE)
- CARBON CREDIT RESTORATION AREA
- VOLUNTEER PLANTING RESTORATION AREA
- WILLOW STAKES 6'-12" O.C. (DENSITY VARIES)

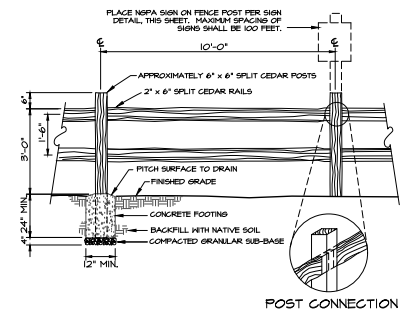
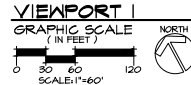
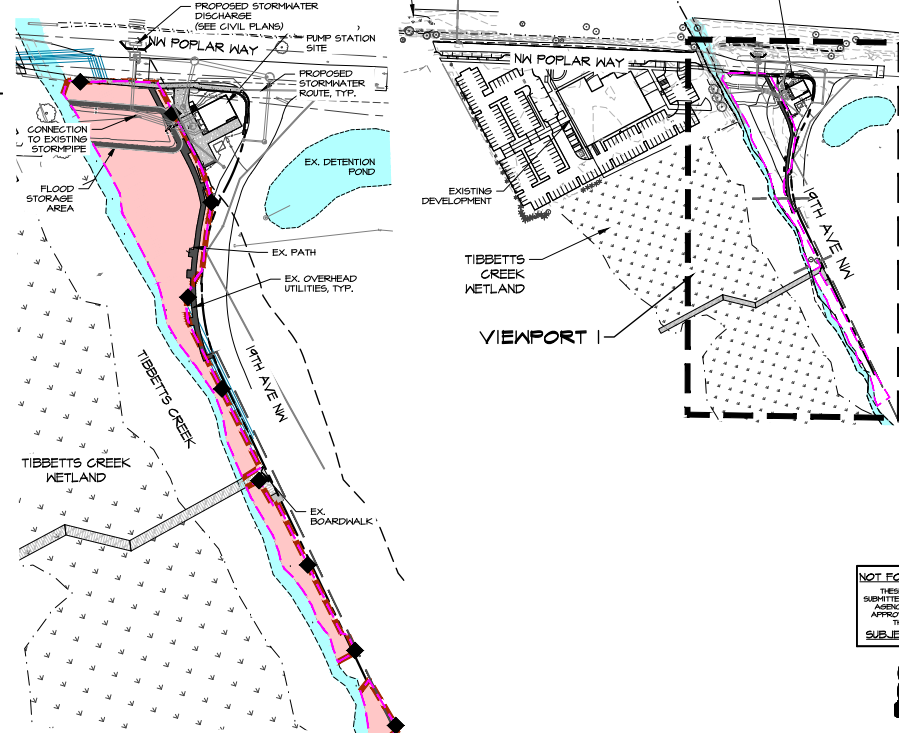
IMPACTS LEGEND

TEMPORARY CONSTRUCTION IMPACTS - WETLAND E	28,914 SF
TEMPORARY CONSTRUCTION IMPACTS - WETLAND E BUFFER	33,742 SF
TOTAL TEMPORARY CONSTRUCTION IMPACTS	62,656 SF (1.44 AC)
PERMANENT WETLAND IMPACTS * (MAINTENANCE ACCESS AND STORMWATER OUTFALL)	805 SF
PERMANENT WETLAND BUFFER IMPACTS * (MAINTENANCE ACCESS)	632 SF
TOTAL PERMANENT CONSTRUCTION IMPACTS *	1,437 SF (0.03 AC)

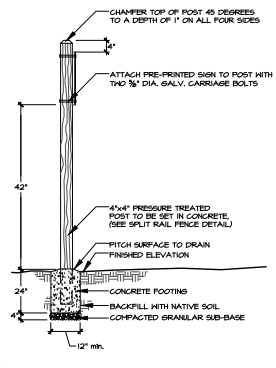
* MITIGATION REQUIRED FOR THE PERMANENT IMPACTS OF WETLAND E AND ITS BUFFER WILL BE PROVIDED BY PURCHASING CREDITS AT KPMB USING THE CREDITS PER UNIT IMPACT RATIO PROVIDED IN THE KPMB'S MITIGATION BANKING INSTRUMENT (SEE CRITICAL AREAS REPORT)

MITIGATION LEGEND

RESTORATION OF TEMPORARY CONSTRUCTION IMPACTS - WETLAND E	28,914 SF
RESTORATION OF TEMPORARY CONSTRUCTION IMPACTS - WETLAND E BUFFER	33,742 SF
TOTAL RESTORATION OF TEMPORARY CONSTRUCTION IMPACTS	62,656 SF (1.44 AC)
RESTORATION OF TIBBETTS CREEK BUFFER (PER EXHIBIT 16 Hyla CROSSING RESPONSE 47-01 NOTED IN APPENDIX J, CRITICAL AREAS, EXHIBIT J-1, DEVELOPER'S AGREEMENT)	26,154 SF (0.6 AC)
VOLUNTEER RESTORATION AREA DISTURBED BY CONSTRUCTION	8,251 SF
WETLAND ENHANCEMENT (REPLACING 664 WILLOWS WITHIN VOLUNTEER RESTORATION AREA)	(8,251 SF X 0.0271 = 226 X 3 = 684)



1 SPLIT 2-RAIL FENCE DETAIL
N.T.S.



2 NSPA SIGN DETAIL TYP.
N.T.S.

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CONSULTANT

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(206) 461-1000 • Fax (206) 461-1000

PROJECT

**HYLA CROSSING
PUMPED STORMWATER
DISCHARGE**

ISSAQUAH, WA

OWNER

ROWLEY
PROPERTIES
1595 NW GILMAN BLVD
ISSAQUAH WA, 98027

PROFESSIONAL SEAL

DESIGN TEAM

EP, AO

PRINCIPAL

BS

PROJECT MANAGER

AO

PROJECT ARCHITECT

EP

DRAWN BY

FH

CHECKED BY

AO

DRAWING SET DESCRIPTION

ASDP

REVISION #1

REVISIONS		
No.	DATE	DESCRIPTION
1	10/3/2019	30% CD
2	4/1/2020	ASDP
3	4/12/2021	ASDP REVISION #1

SHEET TITLE

**SITE PLAN,
IMPACTS &
MITIGATION
OVERVIEW PLAN**

SHEET NUMBER

W2.0

ISSA DATE

4/12/2021

CITY OF ISSAQUAH
Environmental Neighborhood Meeting

6:30 PM
October 19, 2021

Virtual Meeting

MEETING NOTES

HYLA CROSSING PUMP STORMWATER DISCHARGE

Permit Numbers: SHO21-00010

Address: Sammamish Cove Park

Parcel Numbers: 2024069070

APPLICANT & OTHERS PRESENT

Applicant and Team:

Kristi Tripple, Rowley Properties

Jennifer Marriott, PWS

Marty Chase, KPFF Consulting Engineers

Administration/Staff:

Doug Yormick, Assistant Planner

Lucy Sloman, Land Dev. Manager

(Other non-presenting City staff)

Attendees/Speakers:

Jamie Brakken

Joe Decuir

Vo Lee

Jim Mackey

Connie Marsh

Scott Sheffield

(Other non-speaking attendees)

PURPOSE

The Community Planning and Development Department is hosting a meeting to allow the community an opportunity to understand the proposal with particular focus on critical areas and provide the City with thoughts and concerns before a decision is rendered. The applicant, along with technical experts, will be present to answer questions and address issues of interested members.

NEIGHBORHOOD MEETING ITEM

- a) **Hyla Crossing Pump Stormwater Discharge.** The proposed new pipeline will convey stormwater from a new pump station to a near-shore outfall next to Lake Sammamish. The 24-inch pipeline will total approximately 2,897 linear feet long and convey water to Lake Sammamish through a wetland in Sammamish Cove Park. Because the pipe alignment and outfall location do not meet the standards set forth in the City's Shoreline Master Program, a Shoreline Variance is being sought.

Facilitated by:

Doug Yormick, Assistant Planner

Welcome/Introduction

Yormick opened the meeting at 6:32 PM. He introduced members of the applicant team and staff, and gave some guidelines for participating in tonight's neighborhood meeting.

Staff Presentation

Yormick explained the purpose of the meeting and gave an overview of the project and the permit process variance being considered. Tripple gave some background on Rowley's involvement with this project, including the original SEPA decision issued in 2012.

Marty Chase, KPFF, displayed diagrams and photos of the site and explained the proposed Hyla crossing location. This is part of the Rowley Master Agreement's drainage plan as submitted in the project's 2011 EIS and SEPA. He explained that the strategy for discharge being presented tonight and that requires a variance is the preferred strategy. He described the environmental benefits of the proposed project and why discharge is needed. The alignment shown is closer to Lake Sammamish (the Lake), and it offers more direct discharge. Other systems would require filling the site, pumping to Tibbetts Creek (the Creek), and so on. The near-shore outfall was chosen because it is the shortest route possible through the wetland. He showed additional depictions of the outfall location, bubble-up structure, high water line, and so on.

He continued other utilities are located in this area as well. There is no storm retention currently onsite. The bubble-up structure will produce clean water and after it comes online, will be used to treat new projects as well. The discharge will have no sediment or phosphorus, and will be treated to the latest Ecology manual standard.

Jennifer Marriott, Professional Wetland Scientist, showed a diagram of the area, including where temporary environmental impacts will occur. She noted that, where gravel removal and other impacts will take place, fresh soil will be placed and vegetation replanted, resulting in a more functional buffer compared to the existing buffer.

She explained that given the extensive wetlands already near the project and the proximity of the Keller Farm Mitigation Bank, using the mitigation bank was the best option to offset permanent wetland impacts. She gave more details about buying credits to offset impacts.

In answer to an attendee question, she said the Muckleshoot Tribe has been engaged in the discussions with the City, which have also included Ecology, EPA, Army Corps of Engineers, and State Fish and Wildlife. She noted the best available science has changed since the original SEPA and EIS were issued about ten years ago. Of all the alternatives, this alignment was the best location that all parties could support. She gave additional descriptions of the site and of the trees around the Lake shore. We tried to avoid impacts to substantially sized willow trees, she said, and confine impacts to shrubs and grass that are more easily replaced. She continued with a description of the temporary impacts, which, although well below the threshold of Corps requirements for mitigation, will be offset by the credit system she referred to earlier. The focus has been to offset temporary ground disturbances by relying on the best available science and restoring the ground to a better condition.

Chase added the trench to accommodate the pipe is shallow, and as a result construction will be quick. He clarified that the amount of water carried by the proposed pipe will release a range of 2,500 to 5,000 gallons per minute, which is a negligible amount of water ("a drop in the bucket") for a lake the size of Lake Sammamish. He added his understanding is that the level of water in the Lake is controlled at the far-north end of the Lake by the Army Corps of Engineers.

Receive Comments/Questions

Jamie Brakken said her home is the closest house to the proposed outflow, and she owns property on both sides of Schneider Creek. She said tonight she intended to share a 2020 photo of how high the water level of the Lake reached, which was about six feet above her dock. In

response to Chase's comment about the Corps, she said the Corps has decertified the project and isn't doing anything about water levels in the Lake. She spoke against allowing Rowley to take on no water for its project and allowing them to put it in the Lake, which is already flooding. Now they want to buy credits and put water in a Lake that no longer drains. When Rowley pumps more water into the Lake, all of us residents have to absorb the added water so that Rowley can have a high-density project. Tell me why that is fair to residents; why should we absorb it so you can develop your property. We intend to sue.

Tripple said she understands the pressures and frustration being expressed; there are a lot of angry feelings. She continued the water onsite is already making its way to Lake Sammamish. She said the proposed alignment is an attempt to balance competing interests, given the geography of our community. She said we can't control the long-standing situation that exists with the Lake. The water on this property is already going into the Lake via dispersion, and our intent is not to make more water but to make better water that will be better for fish, the environment, and so on. We are trying to appease many voices, do the right thing here, and not take advantage of anyone.

Marriott described the applicable stormwater guidelines, which are developed from the best available science by Ecology, not the City. From our perspective, we try to look at the best solution for competing needs, but are also restricted by the framework within which we are working. This is a regional and watershed issue, not a single project issue, she said, and I feel your frustration.

Chase said the amount of water going into the Lake now is the same as after the project. The City's code and Ecology's stormwater manual prefer relieving runoff as much as possible from entering the Creek because the Creek can't handle it as well as the Lake.

Tripple said this is an emotional issue, and I understand your feelings and frustration. We do not want to flood anyone's home; that is not our intent, and our studies indicate that won't occur. We have been working on this for well over a decade. It is true that the Lake has some serious challenges.

Joe Decuir asked for clarification of the "drop in the bucket" comment made earlier. Chase replied the Lake is enormous, something like 283,000 acre feet, and explained how much water would go through the pipe as a result of the project. Decuir continued he would like more clarity on the volume of water this project would add to the Lake, and the speed with which it is released. He expressed concern about being able to get property insurance, and the effect on home values. We really need to exert region-wide pressure to improve Lake drainage. This group might be more tolerant of a variance if there was confidence that the Lake would actually drain. But we don't have that confidence.

Connie Marsh said visualizing a storm pipe into Lake Sammamish is always horrifying—flashing water through a pipe versus a natural infiltration system. She described the ways that water flows differ, and gave her perception of the possibility of disseminating stormwater through the Park to create a higher, better wetland system, which is not being considered. That would create some natural habitat and be a natural flow of water into the Lake. That seems like a far better solution for everyone, so why is it not on the table. The solution being presented is just a pipe. She continued it looks like some State park trees, City trees, and trees planted by Mountains to Sound Greenway volunteers will need to be removed. She said she doesn't think the delineations are up to date and do not take into consideration all the planting work that has been done in that area. She said she doesn't understand the mitigation to the Creek; the Creek

will be moved as part of another project, so how can anything that temporary be considered mitigation. The banking situation will result in improvements to the other end of the Lake when we have a massive park right there that needs mitigation. It seems inappropriate not to keep the mitigation resources in-house when they are so dramatically needed.

Tripple said she understands the concern about doing mitigation at the other end of the Lake when there is potential at the State park. We have been working with the code we have available to find the best solution. The proposal is to use the Keller Farm Mitigation Bank, which is outside the project boundaries. She described the improvements that would take place at the intersection of NW Poplar and 19th, which is a gravel area adjacent to the Creek that currently serves no function. Our intention is to restore that to a functioning buffer, creating a building block for the Greenway as a whole. Moving the Creek is part of a project that is not associated with this project, she added.

Marriott noted the proposed project does not go through any State park property; it is on City-owned property only. She described the wetlands within the project area, and noted the Watershed Company did a third-party review of the proposed alignment. We are working through making responses to their questions and comments now. They did not question the alignment, she noted, and explained the issues they raised in their review. She gave additional details about how the credit bank will work. The Corps has clearly identified that using banks as mitigation is the preferable mitigation method, and part of our challenge is to achieve a balance with all of the agencies, including the Corps, that are involved with this project.

Marsh replied if your goal is to create a great environment for the City, you can take a pathway to mitigate locally. The Corps won't stop you. So the pathway to mitigate to the north is a choice. She said she'd like to see Rowley do the right thing, attenuate the flows, and discharge in a way that makes the City's water situation better. You have a choice here. She gave her perception of how the code applies, and said we are asking you to make this a better place for humans to live. We know you want to do that, but this misses the mark.

Marriott said she agrees with Marsh in a broad sense, but a dispersion trench would put water into the wetland, and it's a problem we have been working on for over a year. We have been working through State regulations to see how we could make a dispersion trench work, and after a year of work, have determined that Ecology could not support a dispersion trench as a stormwater dispersal method at this location. Ecology is working on updating its stormwater manual, but we don't know when any new information will be available to us. So the dispersion method is not a path we can follow. She said it is a general expectation that projects disturbing wetlands will offset those impacts with wetland creation, but we can't do that with this site. She said it doesn't make sense to disturb the forested areas along the Creek, and that's why the focus is on enhancement plantings and mitigation offsite. She said someone noted in public comment that the mitigation in the Keller Farm Mitigation Bank will put more water into the Lake. She described the Keller Farm property as having previously been farmland. It is a viable concern, but beyond the scope of any one project.

Tim Mackey said the presenters tonight have talked about following the process, but the City is requesting a variance and having people comment is part of the process. He said his comments will focus on the issues that are impacting residents around the Lake that haven't been addressed. He said projects like Rowley's are designed as though Lake Sammamish is infinite, but it isn't. He said he has been working on Lake flooding issues since at least 2009, and has the charts to show that that flood control is worsening. We are frustrated because the process is broken. The Lake lacks the capacity to take on the volume of water this project will generate

and be dispersed in a 24-inch pipeline, and you can't separate volume from the timing of releasing that water. The presenters haven't given us information about the amount of outflow into the Lake. It is not "a drop in the bucket." It's a drop that keeps coming. We are concerned because flooding and high water levels are impacting our properties directly. In 2020, storms created about \$20 million in damage to properties around the Lake, and now we are having to fight having yet more water coming into the Lake. We are being told there are no alternatives here. We appreciate good things like treating the water and improving wetlands, but what is being done to control the volume and timing of more water flowing into the Lake. You have to allow more water to leave the Lake in order to balance out having six percent more water coming in. Show me that.

Marriott said it isn't new stormwater, it's water already going into the Lake. This just shuffles how the water gets there. Mackey replied peak flows are the issue; how fast water gets from where it is to where it is going. If you could work on that, and get the County to allow six percent more water to flow out of the Lake, then we could probably be okay with the project. Get the same amount of water coming in to go out, every day, all day, all winter. That's what we need. The presentation was about mitigation, and not the inflow issue. Make water flow out at the same speed as water flowing in. It's a timing issue. Also, get the weirs lowered in winter. That way instead of Lake water levels being too high when flooding conditions exist, the water level will start at two feet under our docks and can accommodate water coming into the Lake.

Marriott said some of your comments are outside this project and the City's jurisdiction. What would support look like to you, she asked. Mackay said the City needs to lobby the County to do its job, to remove sediment in the transition zoning, and to allow for adjustable, dynamic weirs. Bear Creek has tripled its flow, and is making the problem worse. All we hear is "it's outside our boundary" and "not our problem." Marriott said she can sympathize; it is a Puget Sound-wide problem.

Mackay continued the Lake water level could be lowered by two feet when it wasn't flood season, and the City could put some pressure on the County to solve this issue. So far we cannot get the County to take any action, so our only choice is to go to every jurisdiction that wants to put more water into the Lake and say "no." The public process is intended to identify unintended consequences by listening to the public, and every homeowner on the Lake has had negative consequences and effects when more water has been added to the Lake. The Corps has said the County is out of compliance, needs to do more maintenance, remove old brush, etc., so the Corps is on our side. The County is not doing its job, and we need some pressure to be put on them. This needs to be fixed immediately. Until then, we are in the position of having to block any project that could mean more water coming into the Lake.

Scott Sheffield said he is a long-term Lake resident with lots of knowledge and experience on this issue. He requested that the City actually meet with Lake residents so that residents can put together a bullet-point presentation of issues as we see them. On the flooding issue, he continued, he thinks of the 24-inch pipe as a freeway that would direct water into the Lake, unlike a natural dispersion system. Residents have to upgrade our houses to meet current code, he continued, and this project should be required to meet better requirements for water control, not what was in an agreement made many years ago. We have to build to new requirements, and so should Rowley. The outfall will be more costly in the long run than helping Rowley figure out how to retain some of its water from this project onsite. He said he agrees with Mackay that this needs to be brought to the County's attention; it is a bigger issue than just a City issue. He said he heard some comments made by the presenters tonight about the high-water mark at the Lake in recent years that are not correct, and he has information to share on that. Essentially

you are asking us to help you bear the costs of this project in multiple ways. We need continued conversations about this, he said, as he has a lot more points to cover. He added he is surprised to hear that Ecology is okay with this.

Wrap-Up

Yormick thanked participants and outlined the next steps in the review process. He described how residents and interested parties can stay informed and be a party of record for the project.

ADJOURN

Yormick closed the meeting at 8:27 PM.

Respectfully submitted,

Susan Lowe
Recording Secretary

Doug Yormick

From: Doug Yormick
Sent: Monday, September 27, 2021 2:24 PM
To: Joni Vanderburg-Paner
Subject: RE: Pumping overflow into lake Sammamish

Joni,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. The Notice of Decision will consolidate and provide responses to the comments we receive. We will also forward your comments to the Applicant for a response from them.

The comment period stated on the Notice of Application 1) encourages the public to submit their comments early in the process and 2) ensures that there is a period in which comments may be submitted and no decision will be issued. However, we may not be prepared to issue the decision at the close of the comment period. We accept comments until the decision is issued, though we prefer comments sooner so that we have sufficient time to take them under consideration. Additionally, there will be a neighborhood environmental meeting to hear more details about the proposal and provide additional comments.

The stormwater will be treated prior to discharge to Lake Sammamish to Department of Ecology standards for stormwater. The treatment process will remove many common pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate any pollution concerns.

Despite the pumpstation being constructed by Rowley Properties the ownership and maintenance responsibility will be transferred to the City upon completion. This public/private partnership was negotiated as part of Rowley's Development Agreement with the City in the early 2010's. Our Public Works staff will be tasked with periodic maintenance of the building, discharge pipe, and outfall to ensure everything is in great condition.

Other alternatives were explored during the development of the Rowley's Development Agreement, including onsite detention. The detention pond was determined to not be feasible due to the enormous size of the pond and site constraints. Discharging to a wetland would cause a different set of issues, such as flow control during a rain event and disrupting the delicate hydrology of the wetland and/or nearby streams. In the end the Mater Drainage Plan outlined in the Rowley Development Agreement identified direct discharge of treated stormwater as the preferred method. More information regarding the history and method will be better outlined in the subsequent Neighborhood Environmental Meeting.

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Thank you again for providing public comment for this project. It's engaged residents that keep our City beautiful and lively, while holding everyone involved accountable. I truly appreciate it.

From: Joni Vanderburg-Paner <joni.vanderburg@gmail.com>
Sent: Monday, September 27, 2021 10:13 AM
To: kristit@rowleyproperties.com
Cc: Doug Yormick <DougY@issaquahwa.gov>
Subject: Re: Pumping overflow into lake Sammamish

Resending with correct email for Doug.

On Mon, Sep 27, 2021 at 10:10 AM Joni Vanderburg-Paner <joni.vanderburg@gmail.com> wrote:

Rowley Properties,

It sounds like your new development will allow ground water runoff to go directly into Lake Sammamish. Is this correct? If so, this is a horrible plan. Take responsibility for your mess and create your own detention pond or artificial wetland that will clean the water before it goes back into our fragile ecosystems. The area you are proposing to dump water is habitat to fish and herons. I am expecting a response to address this. Thank you.

CC Doug Yormick, please look into this.

Joni Vanderburg-Paner
206.877.3379

Doug Yormick

From: Doug Yormick
Sent: Friday, September 24, 2021 3:28 PM
To: Young Soo Kim
Subject: RE: Rowley Properties Hyla Crossing

Young,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. Additionally, there will be a public meeting scheduled for this project in the coming weeks. If you received a notice of application, you'll also receive a notice for the public meeting.

The stormwater will be treated prior to discharge to Lake Sammamish. The treatment process will remove many common pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate your pollution concerns.

I will forward your comment to the applicant for a formal response. Your comment will be addressed in the staff report for this project.

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Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: Young Soo Kim <emailyoungsoo@yahoo.com>
Sent: Friday, September 24, 2021 3:05 PM
To: Doug Yormick <DougY@issaquahwa.gov>
Subject: Rowley Properties Hyla Crossing

Please don't let this development dump polluted water into the lake. Our kids swim there... Please...

Thank you for doing the right thing for the residence of this area that you are protecting.

Young

Doug Yormick

From: Doug Yormick
Sent: Wednesday, September 29, 2021 8:46 AM
To: blacknugget@mac.com
Subject: RE: Hyla Crossing Stormwater Discharge

Kyle,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. Additionally, there will be a public meeting scheduled for this project in the coming weeks. You'll receive a meeting notice with instructions for the public meeting.

The stormwater will be treated prior to discharge to Lake Sammamish. The treatment process will remove sediment and pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate pollution concerns.

I will forward your comment to the applicant for a formal response. Your comment will be addressed in the staff report for this project. More information about the project will be discussed at the upcoming neighborhood meeting.

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Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: blacknugget@mac.com <blacknugget@mac.com>
Sent: Tuesday, September 28, 2021 2:25 PM
To: Doug Yormick <DougY@issaquahwa.gov>
Subject: Hyla Crossing Stormwater Discharge

File Number: SH021-00010

Mr Yormick:

I reside at 5220 NW Sammamish Road and received the notice of application for the Hyla Crossing Stormwater

Discharge.

I am writing to you in opposition of this proposal.

Our small cove already has a lot of sediment from the current outflows from new development and outflows from Schneider Creek. Also, the WSDOT is currently looking at adding additional drainage to our cove by removing smaller culvert pipes and re-routing water to the same area. Our dock already goes completely under water each year. Stormwater should be sent to a wetland or other spongy area rather than directly dumped into the lake. The area directly across from our property on I-90 used to have a large wetland to absorb some of this water, but it is quickly disappearing as more development occurs.

If this project does continue, I would at least suggest exiting the pipe around the corner about 200' to the East where residences would not be impacted as much, but the large outflow in the winter would impact us greatly.

Please add me as a Party of Record for this project.

Kyle Buckner
5220 NW Sammamish Road
Issaquah, WA 98027
blacknugget@mac.com

Doug Yormick

From: Doug Yormick
Sent: Wednesday, September 29, 2021 8:47 AM
To: Sam Elder
Subject: RE: SHO21-00010

Sam,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. Additionally, there will be a public meeting scheduled for this project in the coming weeks. You'll receive a meeting notice with instructions for the public meeting.

The stormwater will be treated prior to discharge to Lake Sammamish. The treatment process will remove sediment and pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate pollution concerns.

I will forward your comment to the applicant for a formal response. Your comment will be addressed in the staff report for this project. More information about the project will be discussed at the upcoming neighborhood meeting.

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Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: Sam Elder <sam@samelderlaw.com>
Sent: Tuesday, September 28, 2021 3:01 PM
To: Doug Yormick <DougY@issaquahwa.gov>; CPD [External] <cpd@issaquahwa.gov>
Subject: SHO21-00010

I am writing to provide a public comment related to the Hyla Crossing Stormwater Discharge, Project # SHO21-00010. I have three concerns:

1. The particular area of the lake where the stormwater would be discharged has very little circulation, which is largely caused by a lot of millfoil buildup in this cove. It seems like the discharge should be in an area where

the water circulates better. There is a lot of millfoil in the area which tends to trap things down in this cove. The drainage should be located elsewhere, or the millfoil in the area should be mitigated.

2. This particular area has some of the best fishing on the lake. I am concerned that the discharge may affect the fish and fishing.

3. This area is pretty shallow. It seems like you could find a better location for the discharge where it is deeper with better circulation.

Sam Elder
Law Office of Sam Elder PLLC
5170 NW Sammamish Road
Issaquah, WA 98027
425-999-8170 phone
425-999-8172 fax

Doug Yormick

From: Doug Yormick
Sent: Wednesday, September 29, 2021 8:47 AM
To: Jamie Brakken; CPD [External]
Subject: RE: Hyla Crossing Stormwater Discharge - SHO21-00010

Jamie,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. Additionally, there will be a public meeting scheduled for this project in the coming weeks. You'll receive a meeting notice with instructions for the public meeting.

The stormwater will be treated prior to discharge to Lake Sammamish. The treatment process will remove sediment and pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate pollution concerns.

I will forward your comment to the applicant for a formal response. Your comment will be addressed in the staff report for this project. More information about the project will be discussed at the upcoming neighborhood meeting.

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Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: Jamie Brakken <jamiebrakken@gmail.com>
Sent: Tuesday, September 28, 2021 3:05 PM
To: Doug Yormick <DougY@issaquahwa.gov>; CPD [External] <cpd@issaquahwa.gov>
Subject: Hyla Crossing Stormwater Discharge - SHO21-00010

Hello,

We reside at 5230 NW sammamish Rd, Issaquah WA. Regarding the proposed drainage for Hyla Crossing - We object to the Shoreline Variance that is being sought.

1. Why wasn't the Tibbetts Creek location permitted, and why did it fail to meet Shoreline Master Program requirements? Why should a variance be allowed in a different and more vulnerable location?
2. The proposed location is in an enclosed cove that is already filled with silt and also noxious aquatic vegetation, putting the ecosystem here under tremendous stress. Adding runoff water from buildings and parking lots, no matter how hard you would like to represent that it is "cleaned" prior to entering the lake, will result in further stress, damage and flooding.
3. The wetlands area that is across I-90 has been allowed to develop, by you City of Issaquah, and so we have lost a source of pervious surface for runoff filtration and absorption.
4. You are now allowing Hyla Crossing to degrade this further. Surely there is a portion of the land on the Rowley property that can be used as a natural detention pond prior to moving downstream. If not, the project should not be allowed to move forward.
5. WSDOT is engaged in a culvert project at this location to re-engage a healthy salmon spawning environment at Schneider Creek. You would be also adding more water to this same place, and possibly unhealthy water to this place.
6. As a board Member on Washington Sensible Shorelines, I am acutely aware of flooding issues on this lake, and the City of Issaquah's participation in many of the causes. Lakefront homeowners, during the highest rain months are experiencing unprecedented flooding as our lake fills with silt and excess unregulated runoff. You will be allowing even more, by not requiring applicant to preserve a portion of their own property for the runoff. Lake Sammamish does not have an endless capacity to take on more stormwater.
7. Early review of Hyla Crossing brought promises that the stormwater discharge would be over by the state park, and prior to that, run into the lake along the bottom to a minimum depth of 12 feet of water prior to discharge. Now you are draining at the water's edge in a sensitive area.

Please acknowledge receipt of this email, and respond. Stop the insanity please,

Regards,
William and Jamie Brakken



Jamie Brakken
Managing Broker - RSVP Real Estate
Direct: (425) 829-7527
Fax: (425) 837-3827
Email: jamiebrakken@gmail.com
Website: www.northwestsold.com

Doug Yormick

From: Doug Yormick
Sent: Thursday, September 30, 2021 3:18 PM
To: Brad Del Matto
Subject: RE: SHO21-00010 Hyla Stormwater Pumpstation

Brad,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. Additionally, there will be a public meeting scheduled for this project in the coming weeks. You'll receive a meeting notice with instructions for the public meeting.

The stormwater will be treated prior to discharge to Lake Sammamish. The treatment process will remove sediment and pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate pollution concerns.

I will forward your comment to the applicant for a formal response. Your comment will be addressed in the staff report for this project. More information about the project will be discussed at the upcoming neighborhood meeting.

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Doug Yormick

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1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: Brad Del Matto <braddmt@hotmail.com>
Sent: Wednesday, September 29, 2021 8:22 PM
To: Doug Yormick <DougY@issaquahwa.gov>
Subject: 1875 POPLAR LOT LINE ADJUSTMENT

I am writing in regards to the Rowley Properties stormwater drainage pipe permit. I understand it failed to pass the City Shoreline Management standards, and now Rowley is seeking a variance.

Lake Sammamish water quality to sustain fish and wildlife has suffered due to the amount of unfiltered drainage running into the Lake. It is up to the governments surrounding the Lake to not allow developers to dump untreated stormwater into the Lake. Treating the stormwater runoff is simply a cost of development and allowing a variance enriches and encourages developers to skirt environmental standards.

Thanks for listening,

Brad Del Matto
161 E. Lake Sammamish Shore Lane NE
Sammamish

Doug Yormick

From: Doug Yormick
Sent: Thursday, September 30, 2021 3:52 PM
To: atberns@gmail.com
Subject: RE: Opposition to the Hyla Crossing Stormwater Discharge

Adam,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. Notification went out to properties within 300 feet of the subject property using the information our system gathers from King County. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. Additionally, there will be a public meeting scheduled for this project in the coming weeks. You'll receive a meeting notice with instructions for the public meeting.

The stormwater will be treated prior to discharge to Lake Sammamish. The treatment process will remove sediment and pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate pollution concerns.

I will forward your comment to the applicant for a formal response. Your comment will be addressed in the staff report for this project. More information about the project will be discussed at the upcoming neighborhood meeting.

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Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: atberns@gmail.com <atberns@gmail.com>
Sent: Thursday, September 30, 2021 3:20 PM
To: Doug Yormick <DougY@issaquahwa.gov>; CPD [External] <cpd@issaquahwa.gov>
Cc: 'alessandra berns' <alessanp1@hotmail.com>; atberns@gmail.com
Subject: Opposition to the Hyla Crossing Stormwater Discharge

File Number: SH021-00010

Mr Yormick,

My family resides at 5152 NW Sammamish Road. Our neighbors received the notice of application for the Hyla Crossing Stormwater Discharge. Though you failed to notify us, I am writing in strong opposition of this proposal.

Eagle Cove is transforming before our eyes and is being destroyed by the sediment from the existing outflows from the new developments and from Schneider Creek. As our neighbors will attest, our docks and properties now go completely underwater each year which has damaged our property, our approved docks and our boat lift mechanisms. The fact that you are even considering dumping more stormwater directly into the lake and next to our property and a super popular park is baffling and concerning. You need to send the storm water to an area 200 feet to the east and dump it in marshy wetlands to absorb and minimize the impact.

Please add me as a Party of Record for this project.

Adam T. Berns
5152 NW Sammamish Road
Issaquah, WA 98027
atberns@gmail.com

Doug Yormick

From: Doug Yormick
Sent: Monday, September 27, 2021 2:08 PM
To: Ed Mills
Subject: RE: Rowley Properties stormwater drainage permit

Ed,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. The Notice of Decision will consolidate and provide responses to the comments we receive. We will also forward your comments to the Applicant for a response from them.

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Despite the pumpstation being constructed by Rowley Properties the ownership and maintenance responsibility will be transferred to the City upon completion. This public/private partnership was negotiated as part of Rowley's Development Agreement with the City in the early 2010's. Our Public Works staff will be tasked with periodic maintenance of the building, discharge pipe, and outfall to ensure everything is in great condition.

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Doug Yormick
Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
doug@issaquahwa.gov

-----Original Message-----

From: Ed Mills <EdM@kidem.org>

Sent: Friday, September 24, 2021 6:36 PM
To: Doug Yormick <DougY@issaquahwa.gov>
Subject: Rowley Properties stormwater drainage permit

Please ensure that the Rowley Properties stormwater drainage permit passes the City Shoreline Management standards.

A pumped solution without permanent maintenance is a recipe for eventual failure without a clear line of responsibility.

Thanks,
Ed Mills

Doug Yormick

From: Doug Yormick
Sent: Monday, September 27, 2021 2:20 PM
To: Suzanne Marston
Subject: RE: Pollution and Stormwater into Lake Sammamish- Rowley Properties Hyla Crossing.

Suzzane,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. The Notice of Decision will consolidate and provide responses to the comments we receive. We will also forward your comments to the Applicant for a response from them.

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Doug Yormick

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1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: Suzanne Marston <smarston7@comcast.net>

Sent: Saturday, September 25, 2021 9:14 AM

To: Doug Yormick <DougY@issaquahwa.gov>

Subject: Pollution and Stormwater into Lake Sammamish- Rowley Properties Hyla Crossing.

Please do not allow a variance on this stormwater drainage. We need to protect our environment!

The Rowley Properties stormwater drainage pipe permit from their big development across I-90 into Lake Sammamish failed to pass the City Shoreline Management standards. Now they are seeking a variance. This time in a new and worse location, into a small cove that is habitat for juvenile salmon and other species including Heron, freshwater clams and various fish species. This location is a main pathway to salmon spawning over at Issaquah Creek. water could drain into a detention pond they create on their own property or into Issaquah's wetland field, but neither wants to sacrifice their land, so it is proposed to pump it almost 3000' feet and dump it into lake Sammamish. This includes water from roof tops, gutters, parking lots.

Doug Yormick

From: Doug Yormick
Sent: Monday, September 27, 2021 2:21 PM
To: Julia Spangler
Subject: RE: Rowley water

Julia,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. The Notice of Decision will consolidate and provide responses to the comments we receive. We will also forward your comments to the Applicant for a response from them.

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Thank you again for providing public comment for this project. It's engaged residents that keep our City beautiful and lively, while holding everyone involved accountable. I truly appreciate it.

Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: Julia Spangler <jespangler@gmail.com>
Sent: Saturday, September 25, 2021 10:40 AM
To: Doug Yormick <DougY@issaquahwa.gov>
Subject: Rowley water

Dear Doug,

I would like to add my voice to others who are concerned about the drainage from Rowley developments going into sensitive areas of Lake Sammamish. Please let us stop sacrificing essential natural systems to our greed in making the most money from developments. Business does not trump nature, especially when our salmon populations are already so stressed by climate change and development all over the area.

I suspect you know all of the arguments. Please don't succumb to pressure from powerful, rich corporations. They can use their own land to make a containment pond, and they can make it pretty like the containment pond at Pickering Place. Do it right for the good of the whole, including the health of our lake.

Julia Spangler

Doug Yormick

From: Doug Yormick
Sent: Monday, September 27, 2021 2:22 PM
To: adrebin346@gmail.com
Subject: RE: Hyla Crossing and Rowley Center Project

Anne

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. The Notice of Decision will consolidate and provide responses to the comments we receive. We will also forward your comments to the Applicant for a response from them.

The comment period stated on the Notice of Application 1) encourages the public to submit their comments early in the process and 2) ensures that there is a period in which comments may be submitted and no decision will be issued. However, we may not be prepared to issue the decision at the close of the comment period. We accept comments until the decision is issued, though we prefer comments sooner so that we have sufficient time to take them under consideration. Additionally, there will be a neighborhood environmental meeting to hear more details about the proposal and provide additional comments.

The stormwater will be treated prior to discharge to Lake Sammamish to Department of Ecology standards for stormwater. The treatment process will remove many common pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate any pollution concerns.

Despite the pumpstation being constructed by Rowley Properties the ownership and maintenance responsibility will be transferred to the City upon completion. This public/private partnership was negotiated as part of Rowley's Development Agreement with the City in the early 2010's. Our Public Works staff will be tasked with periodic maintenance of the building, discharge pipe, and outfall to ensure everything is in great condition.

Other alternatives were explored during the development of the Rowley's Development Agreement, including onsite detention. The detention pond was determined to not be feasible due to the enormous size of the pond and site constraints. Discharging to a wetland would cause a different set of issues, such as flow control during a rain event and disrupting the delicate hydrology of the wetland and/or nearby streams. In the end the Mater Drainage Plan outlined in the Rowley Development Agreement identified direct discharge of treated stormwater as the preferred method. More information regarding the history and method will be better outlined in the subsequent Neighborhood Environmental Meeting.

If you'd like to remain engaged throughout the process you can become a party of record. Being a party of record ensures you are kept up to date with any decisions that are made about this project in the future. You can also look at our active projects map where I'll post any new documents that are pertinent for the review. If you'd like to be a party of record just respond to this email stating those intentions.

Thank you again for providing public comment for this project. It's engaged residents that keep our City beautiful and lively, while holding everyone involved accountable. I truly appreciate it.

Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: adrebin346@gmail.com <adrebin346@gmail.com>
Sent: Saturday, September 25, 2021 5:39 PM
To: Doug Yormick <DougY@issaquahwa.gov>
Subject: Hyla Crossing and Rowley Center Project

Hello – I understand Rowley Properties is seeking a variance for stormwater runoff from their Hyla Crossing project. Even though I’m not an Issaquah resident, I live very close to Lake Sammamish and very much oppose the granting of this variance. This area is the habitat for some amazing birds and fish, including spawning salmon. Please do the environmentally correct thing and deny this variance.

Thank you!
-Anne

Doug Yormick

From: Doug Yormick
Sent: Monday, September 27, 2021 2:23 PM
To: Albert Ting 7070
Subject: RE: Install Pump station and force main in lieu of detention for Hyla

Albert,

Thank you for taking the time to provide a public comment on the proposed stormwater pumpstation. I'll provide you with some information about the pump station and the treatment the water will receive prior to discharge into Lake Sammamish. The Notice of Decision will consolidate and provide responses to the comments we receive. We will also forward your comments to the Applicant for a response from them.

The comment period stated on the Notice of Application 1) encourages the public to submit their comments early in the process and 2) ensures that there is a period in which comments may be submitted and no decision will be issued. However, we may not be prepared to issue the decision at the close of the comment period. We accept comments until the decision is issued, though we prefer comments sooner so that we have sufficient time to take them under consideration. Additionally, there will be a neighborhood environmental meeting to hear more details about the proposal and provide additional comments.

The stormwater will be treated prior to discharge to Lake Sammamish to Department of Ecology standards for stormwater. The treatment process will remove many common pollutants, including phosphorous from pollution generating sources such as parking lots and roadways. I can put you in touch with one of our review engineers who can describe the treatment process in much better detail than I just described. Currently untreated stormwater flows into our waterways, mainly Tibbets Creek prior to discharge into Lake Sammamish. The proposed method should eliminate any pollution concerns.

Despite the pumpstation being constructed by Rowley Properties the ownership and maintenance responsibility will be transferred to the City upon completion. This public/private partnership was negotiated as part of Rowley's Development Agreement with the City in the early 2010's. Our Public Works staff will be tasked with periodic maintenance of the building, discharge pipe, and outfall to ensure everything is in great condition.

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Thank you again for providing public comment for this project. It's engaged residents that keep our City beautiful and lively, while holding everyone involved accountable. I truly appreciate it.

Doug Yormick

Assistant Planner | Community Planning and Development
1775 12th Ave NW
Issaquah, WA 98027
425.837.3083
dougy@issaquahwa.gov



From: Albert Ting 7070 <alt7070@hotmail.com>
Sent: Saturday, September 25, 2021 8:42 PM
To: Doug Yormick <DougY@issaquahwa.gov>
Subject: Install Pump station and force main in lieu of detention for Hyla

Hi, can you give me more info about this?

Why would they want a pump station in lieu of detention?

Is the environmental impact of a code compliant solution (with no variance) better than one with the variance?

Thx,
AlbertT



June 8, 2022

Doug Yormick
Associate Environmental Planner
City of Issaquah Department of Planning and Development
PO Box 1307
Issaquah, WA 98027

Subject: Hyla Crossing Pumped Stormwater Discharge
Lake Sammamish Level Study

Dear Doug:

Based on public comment during the City's requested neighborhood environmental review (post Planned Action Ordinance and associated Project level SEPA MDNS) over the Hyla Crossing Pumped Stormwater Discharge (Project) near shore outfall to Lake Sammamish, the city requested Rowley Properties to study the Project's effect on Lake Sammamish's water level. Attached to this letter is the requested analysis by West Consultants, Inc., a respected local hydrologic and water resources engineering firm.

PROJECT DESCRIPTION

Currently, the majority of stormwater runoff from approximately 48 acres of Hyla Crossing is conveyed mostly un-detained via catch basins and pipes to Tibbetts Creek via existing outfalls and the WSDOT I-90 East-Bound ditch. During the preparation of the Hyla Crossing Master Development Agreement, it was determined that traditional buried or surface storm detention was infeasible due to the extremely poor soils and high groundwater table. The solution documented in the Master Development Agreement and approved by a Final SEPA Mitigated Determination of Non-Significance was to pump the equivalent of the storm detention requirement to Lake Sammamish. In essence, the proposed pump station is a substitute for a typical storm detention system.

The Project did consider traditional detention onsite with discharges only to Tibbetts Creek. The detention vault required to achieve the same hydraulic performance as the pump station would contain approximately 558,000-cubic feet of storage. The excavation for this vault would be approximately 20-feet deep to allow gravity flow from upstream storm drain systems. Given the high groundwater table on the site, the uplift pressures on this large of a structure at ± 20 -foot depth would be infeasibly high to resist with traditional structural methods. Vertical soil anchors were considered to resist uplift on the vault floor; however, the peat soils make those infeasible as well.

Attached appendix contains exhibits that visually explain the scope of the Project.

ENVIRONMENTAL COMPLIANCE

The City of Issaquah drainage manual, as well as all other Western Washington drainage manuals, designate Lake Sammamish as a Flow Control Exempt Receiving Water Body. Essentially, this means that the lake and its outfall have sufficient capacity to accept runoff from current and future developments within its drainage basin with no significant environmental damage. This designation allows for direct discharge of stormwater to the lake from new development without any flow control. Water quality standards are, of course, still applicable to lake discharges.

Tibbetts Creek is listed as a fish bearing water body and is therefore subject to the Flow Control Performance Standard. This standard is intended to mimic forested or wetland conditions that were present prior to original development in which natural land conditions release stormwater runoff slower than developed land conditions. Increased rate of stormwater discharge due to hard surface development cause erosion and sedimentation buildup in the stream channel that harms fish spawning viability.

The Project proposes to divert the excess stormwater generated from new development from the sensitive Tibbetts Creek to the more robust and flow control exempt Lake Sammamish. Base flows to Tibbetts Creek are maintained to preserve its aquatic habitat. By protecting Tibbetts Creek through the diversion of excess flows to Lake Sammamish, the Project is proposing the better environmental solution in compliance with the City of Issaquah drainage manual.

SUMMARY

The residents along the southern shoreline of Lake Sammamish have realized real impacts to their shoreline improvements caused by extreme weather conditions and the way the lake outfall is managed. By bringing this to our attention, we have responded by:

1. Hiring West Consultants to analyze the Project's contribution to the lake level. As shown in the attached study, the Project's contribution to lake level is negligible.
2. Engaging King County to better understand the issues associated with the lake basin. We now understand this year King County will be hiring a consultant to perform a comprehensive lake study to develop recommendations for improvements and managing the lake basin.

Sincerely,



Martin F. Chase, PE
Principal

1800530

Technical Memorandum

WEST Consultants, Inc.

12509 Bel-Red Road, Suite 100
Bellevue, WA 98005-2535
(425) 646-8806 (office)
(425) 646-0570 (fax)
www.westconsultants.com



Date: June 7, 2022
To: Chris Borzio, KPFF
From: Raymond Walton, PhD, PE, D.WRE
Subject: Lake Sammamish Impacts from Hyla Crossing Stormwater Discharges

1. INTRODUCTION

The Hyla Crossing Pumped Stormwater Discharge project is intended to manage flows from a future development of 47.7 acres of Commercial Property in Issaquah, Washington. The project proposes to manage on-site stormwater by pumping the predeveloped base flow runoff directly to Tibbetts Creek and the equivalent of the storm detention requirement pumped directly to Lake Sammamish. Post-developed overflow runoff exceeding the storm detention requirements would gravity flow to Tibbetts Creek similar to a typical storm detention system. In essence, the proposed pump station is a substitute for a typical buried storm detention system.

Concern has been raised that these discharges to Lake Sammamish will ultimately raise levels in Lake Sammamish and negatively alter lakeside structures. The purpose of this technical memorandum is to evaluate these questions below.

From a hydrologic and hydraulic (H&H) point of view, the two questions to be addressed are:

1. Will the discharges from the development cause any increase in water surface elevations (WSELs) in Lake Sammamish compared to existing conditions, and
2. Will the pumped discharge to the small cove to the west of where Tibbetts Creek enters Lake Sammamish significantly elevate WSELs in the cove, and impact the docks of nearby homeowners?

2. Impacts to Water Levels in Lake Sammamish

KPFF is evaluating a design concept in which stormwater runoff from the site is split between a discharge to Tibbetts Creek that mimics a pre-development condition and discharging excess flow to a cove of Lake Sammamish just to the west of where Tibbetts Creek enters Lake Sammamish ("Proposed" Condition). In addition, they are comparing the effects of stormwater detention ("Detention" Condition) to the "Proposed" Condition. In the "Detention" Condition scenario, they

considered a vault that would collect and store stormwater and release it to Tibbetts Creek so as not to exceed the maximum pre-development discharge. The concern expressed by some property owners is that the stormwater discharges from project site to Lake Sammamish could increase water surface elevations (WSELs) in Lake Sammamish.

To evaluate the potential impacts of stormwater discharges on WSELs in Lake Sammamish, KPFF provided output from a hydrologic model run for a 60-year period for “Existing”, “Proposed”, and “Detention” conditions. The results were provided as hourly discharges. Table 1 lists the average stormwater discharge for each condition modeled. The table also lists the maximum difference in hourly discharges compared to “Existing” conditions. This would be the upper limit of any increase in flow that might be seen at the outlet weir at the north end of Lake Sammamish.

Table 1. Average Stormwater Discharges

Condition	Average Stormwater Discharge	Maximum Hourly Discharge (date)	Maximum Increase in Hourly Discharge	Maximum Increase in 24-hour running average discharges
Existing	0.23 cfs	33.9 cfs (11/4/1998)		
Proposed ¹	0.22 cfs	31.8 cfs (11/4/1998)	0.4 cfs	0.3 cfs
Detention	0.22 cfs	Discharge smoothed	9.4 cfs	4.7 cfs

Note: ¹ “Proposed” condition includes discharges to Tibbetts Creek and the pumped runoff to the Cove

Lake Sammamish is about 7.3 miles long and has an average depth of 58 feet. Therefore, the wave celerity (wave speed) is approximately 43.2 ft/sec and the travel time of a gravity wave from the mouth of Tibbetts Creek to the north end of the Lake is approximately 15 minutes. There is an overflow weir in Marymoor Park that controls water levels in Lake Sammamish and outflows to the upper Sammamish River. This travel time is significantly less than the interval (one hour) of the results from the hydrologic model, and therefore we can assume that discharges to the south end of Lake Sammamish are “felt” at the northern end, and the overflow weir, within the resolution of the hydrologic model’s output. We can also assume that, to first order, Lake WSELs are essentially flat, in the absence of non-discharge conditions (such as wind).

The average annual discharge at USGS streamflow gauge 12125200, Sammamish River Near Woodinville, is 311 cfs. However, the County believes that discharges from Lake Sammamish are influenced by backwater from Bear Creek. King County has a gauge, M51, located in the Sammamish River but closer to the lake’s outlet. Using available M51 data from July 2001 to May 2022, the minimum reported flow is 16.1 cfs. We will assume that this would be a “worst case” low discharge to the Sammamish River during conditions in which stormwater from the Hyla Crossing project is being discharged to Lake Sammamish, as the rainy season will generally see larger flows in the Sammamish River and higher Lake levels.

King County developed a hydraulic model of the Sammamish River and included Lake Sammamish at the upstream extent. The model also includes the outlet weir in Marymoor Park, Redmond that controls WSELs in Lake Sammamish. Table 2 shows the part of the elevation-volume curve developed for the hydraulic model that covers the operating range of Lake Sammamish.

Table 2. Lake Sammamish Elevation-Volume Table

Stage	Volume
20.4 ft NAVD88	238,751 ac-ft
32.6 ft NAVD88	296,143 ac-ft

The maximum hourly difference in stormwater discharges to Lake Sammamish is 0.4 cfs (Table 1). Using the information in Table 2, it would take a discharge of 0.4 cfs about 24 days to increase the Lake level by 0.01 and more than 2 days to increase it by 0.001 feet. And during any long averaging period, the averaged flow difference would decrease. For example, the maximum 2-day difference is 0.23 cfs, which would lengthen the appropriate averaging period.

To evaluate the difference in Lake Sammamish WSELs, we used the King County Sammamish River model to develop a rating curve of elevations versus flow at the outlet weir from Lake Sammamish. From this rating curve, an increase in outflow from the minimum value of 16.1 cfs (reported at King County's M51 gauge) by 0.23 cfs would increase the water surface elevation by only 0.003 feet. Under maximum (but unrealistic) detention basin conditions, the increase would be about 0.06 feet for a maximum daily increase of 0.47 cfs.

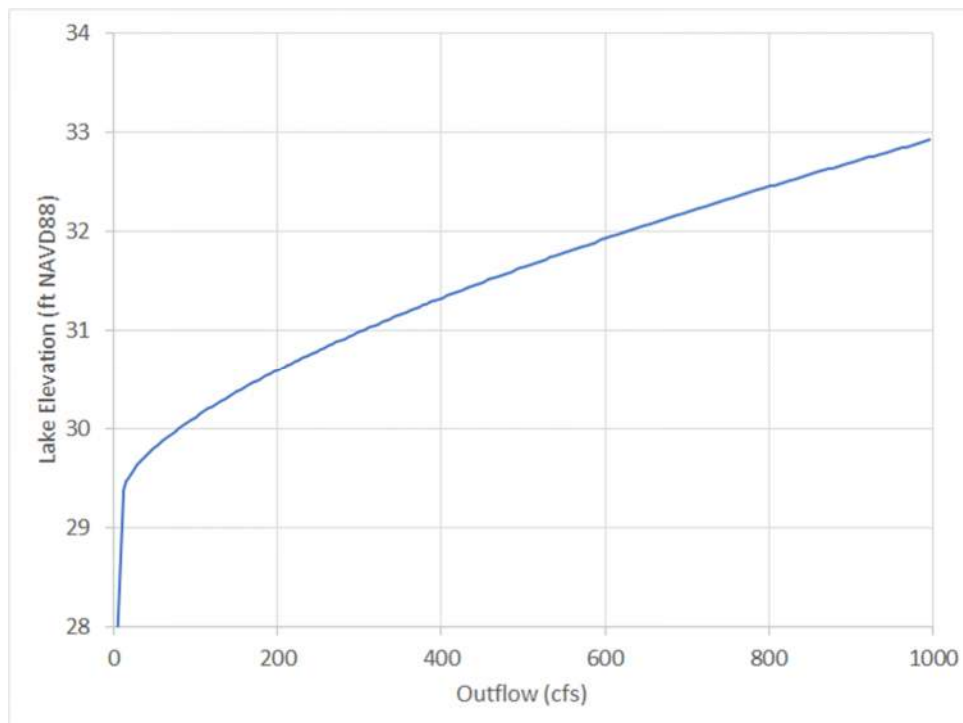


Figure 1. Rating Curve at Lake Sammamish Outlet Weir from King County Model of Sammamish River

This is a conservative estimate of “increases” in Lake Sammamish WSELs, and does not consider many other factors, such as wind and offsetting decreases in Lake WSELs.

3. Effect of Discharges to Cove West of Tibbetts Creek

The results of the hydrologic model show a maximum discharge to the cove at the north side of Lake Sammamish Park of 11.6 cfs. To evaluate the impact of this maximum discharge on WSELs in the cove, we developed a two-dimensional (2D) hydraulic model of the cove using HEC-RAS version 6.2. Figure 2 shows the 2D grid used, developed using a resolution of 20 feet, and the location of boundary conditions. A constant inflow of 11.6 cfs was specified at the inflow boundary and a fixed WSEL of 32 feet specified at the “Cove Boundary”. A uniform Manning’s n roughness value of 0.03 was specified.

The terrain was developed using a combination of (1) a bathymetric survey of part of the cove provided by KPFF, (2) 5-foot contours of the lake developed from soundings obtained by King County, and (3) the most recent LiDAR coverage of the area. These data were “blended” to match the boundary between 5-foot sounding contour data and LiDAR, and then imposing the site bathymetry where measured.

Figure 3 shows the terrain after all three data sources are “blended”. As can be seen in the figure, the depths in the bathymetric survey area are up to 15 feet deeper than shown in the terrain developed without the bathymetric survey (Figure 4). As we would expect a greater increase in WSELs for shallower flows, we elected to use the terrain shown in Figure 4, without the bathymetric survey, to be conservative.

The results of the model (Figure 5) show an increase in WSEL of 0.00002 feet at the mouth of the smaller cove near the discharge location and no increase (to 5 decimal places) at the dock closest to the discharge location. These increases are well within the normal “no rise” criterion of 0.00 feet and represent no significant increases in WSELs.



Figure 2. Grid Used to Evaluate Cove Discharge

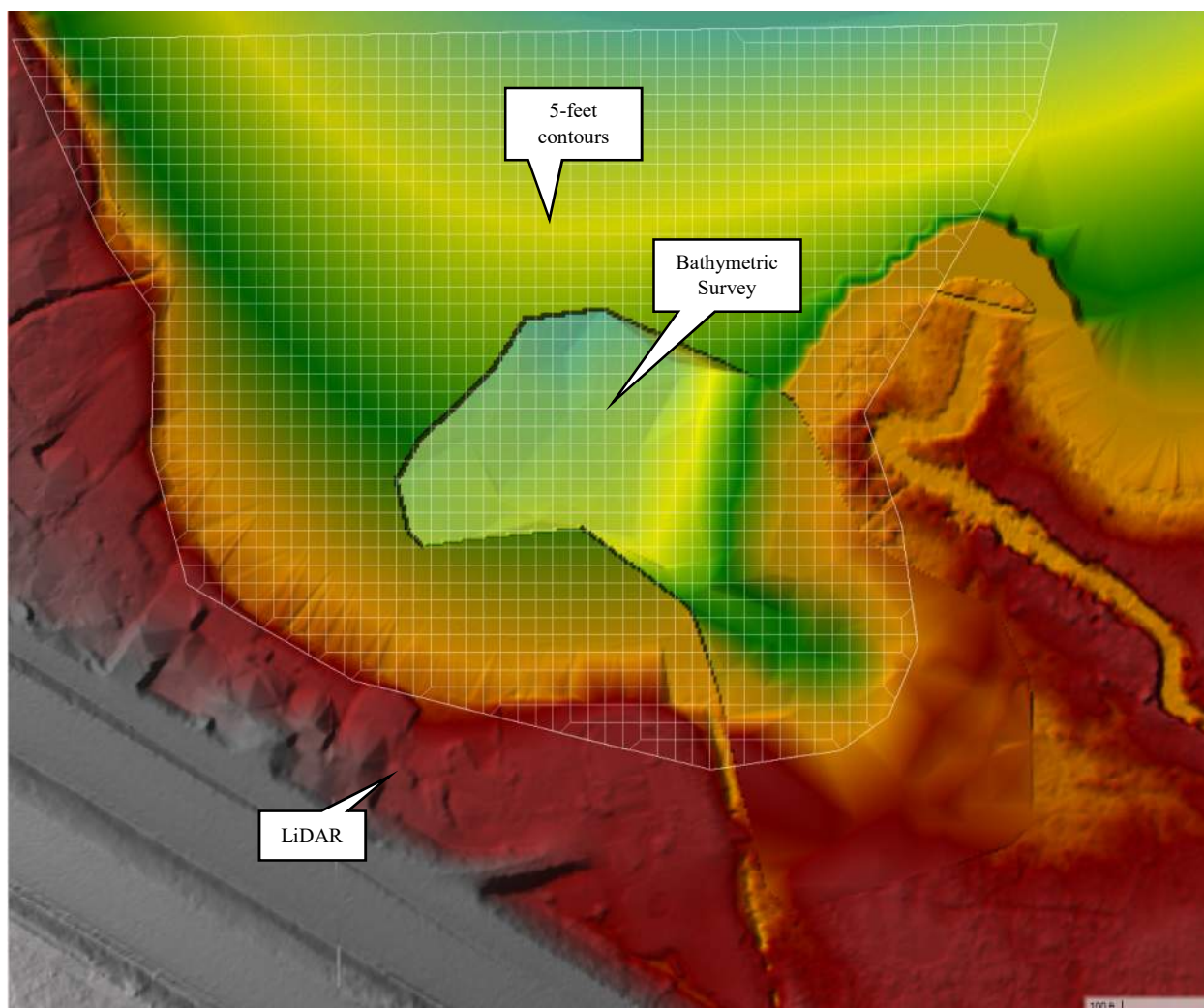


Figure 3. Blended Terrain for Cove Model

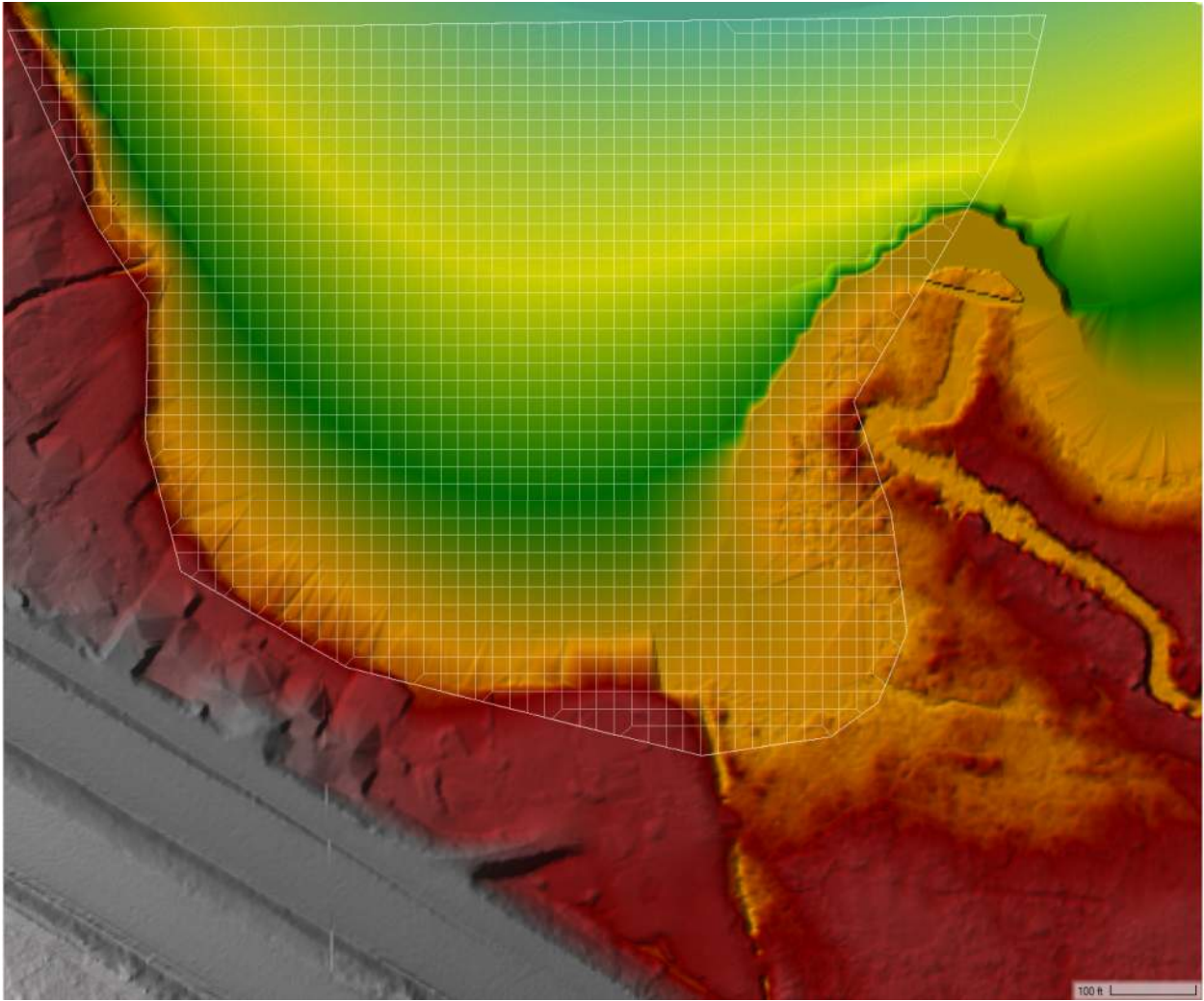


Figure 4. Blended Soundings and LiDAR for Cove Model



Figure 5. Maximum Increases in Water Surface Elevations

4. CONCLUSIONS

In addressing the two issues raised in the Introduction, the analyses showed:

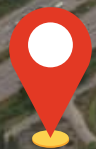
1. Overall Lake Sammamish WSELs would decrease as the project would decrease the average annual discharge from 0.23 cfs to 0.22 cfs under both “Proposed” and “Detention” conditions.
2. The analysis shows that under “Proposed” Conditions, the maximum increase in Lake Sammamish WSELs is 0.003 feet. This “worst case” estimate assumes high stormwater discharges from the Hyla Crossing Project during extreme low outflows from Lake Sammamish.
3. The maximum pumped discharge of water to the cove to the west of the mouth of Tibbetts Creek would result in no increase (to 5 decimal places) at the dock closest to the discharge location.
4. Both of these WSEL maximum increases are well within the normal “no rise” criterion of 0.00 feet (to two decimal places).

APPENDIX

- Hyla Crossing Drainage Basin
- Pumped Stormwater Path to Lake Washington
- Pump Station Schematic - Site Plan
- Pump Station Schematic - Section
- Pump Station Schematic - Pump Chamber

Stormwater Basin

Hyla Crossing



Pump Station

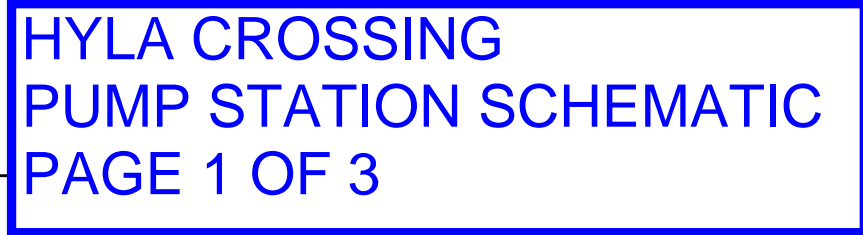


**Stormwater delivered towards Lake Sammamish -
receiving body of water per NDPES manual**

**Small rock
outfall**

Pump Station





OUTFLOW TO
CREEK AND LAKE

FLOW CONTROL LIVE STORAGE
WITHIN FLOW SPLITTING CHAMBER

EXTERNAL HIGH FLOW BYPASS
PIPE OVERFLOW ELEVATION

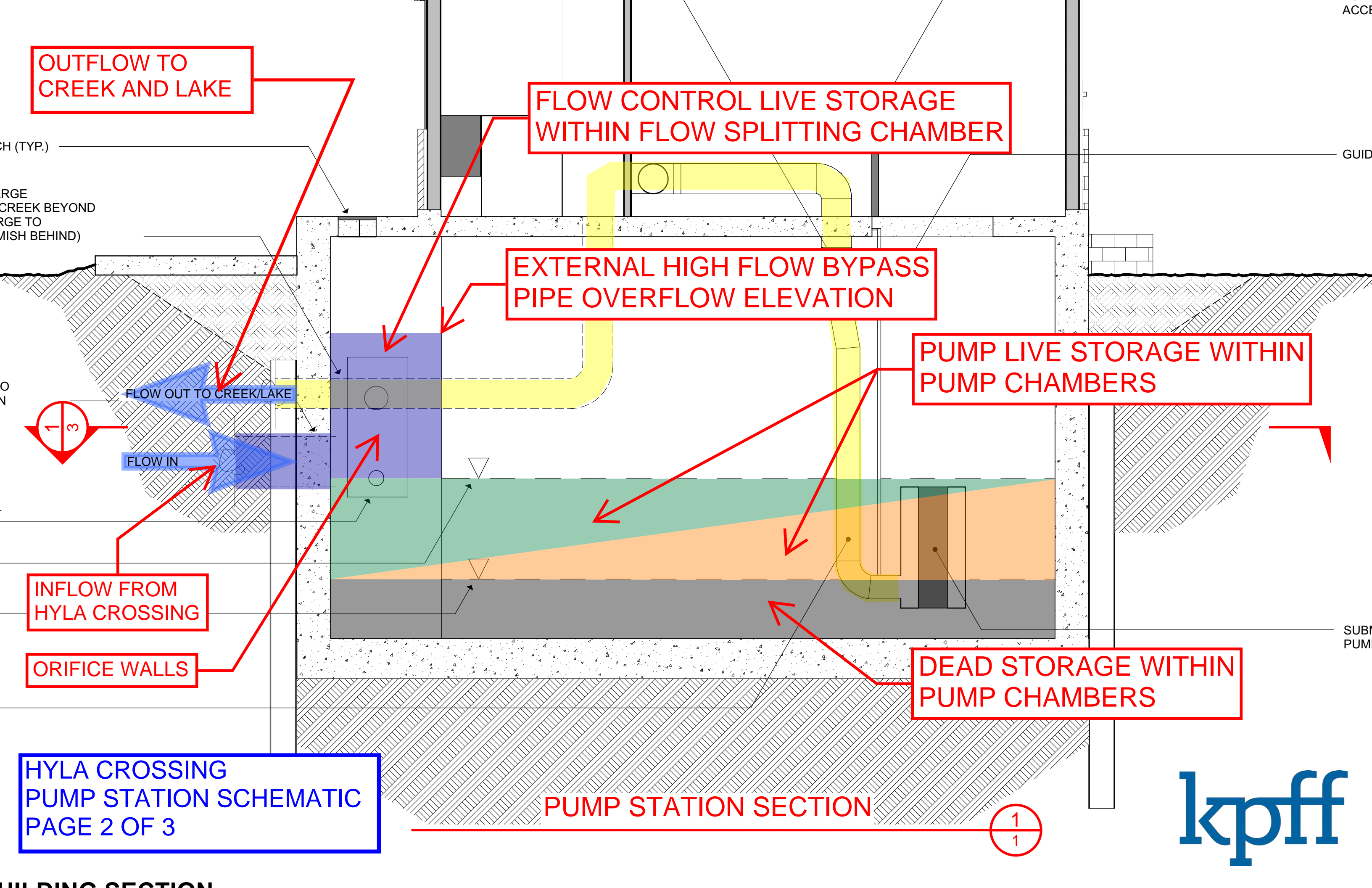
PUMP LIVE STORAGE WITHIN
PUMP CHAMBERS

INFLOW FROM
HYLA CROSSING

ORIFICE WALLS

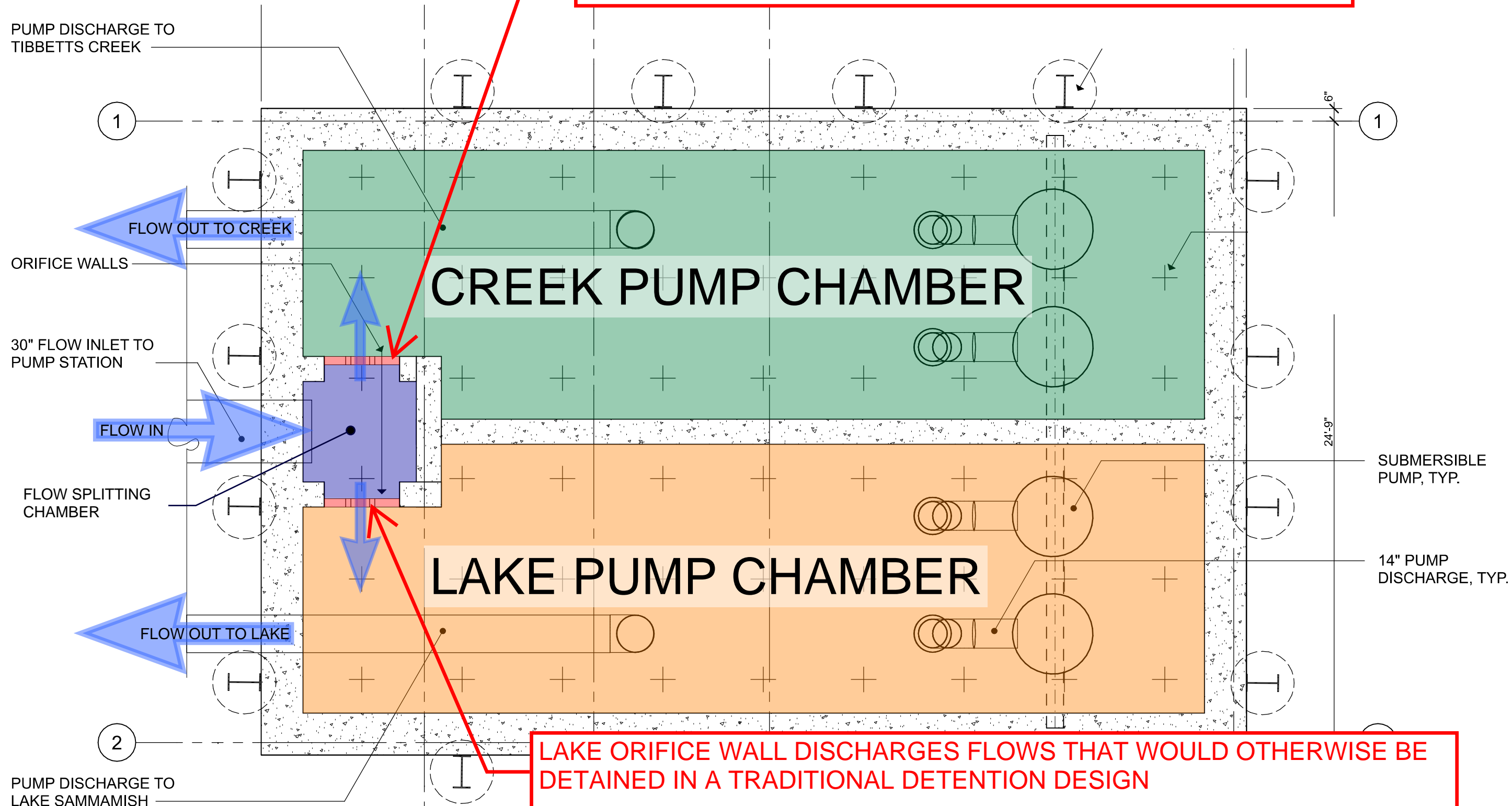
HYLA CROSSING
PUMP STATION SCHEMATIC
PAGE 2 OF 3

PUMP STATION SECTION



CREEK ORIFICE WALL DISCHARGES FLOWS IN COMPLIANCE WITH DURATION STANDARD

PUMP DISCHARGE TO
TIBBETTS CREEK



LAKE ORIFICE WALL DISCHARGES FLOWS THAT WOULD OTHERWISE BE DETAINED IN A TRADITIONAL DETENTION DESIGN

TECHNICAL MEMORANDUM

DATE: August 18, 2022
TO: Doug Yormik, City of Issaquah
Gary Schimek, City of Issaquah
FROM: Paul Fendt, PE
SUBJECT: Hyla Crossing Pumped Stormwater Discharge Lake Sammamish Level Study Peer Review
CC: John Phillips

Parametrix was tasked by the City of Issaquah (City) on July 28, 2022, to complete a peer review of the Hyla Crossing Pumped Stormwater discharge and Lake Sammamish level study. The review includes two documents: a cover letter dated June 8, 2022 from Martin Chase of KPFF and a technical memorandum (West TM) with appendix dated June 7, 2022 from Raymond Walton of West Consultants. No other materials were provided. I also reviewed other supplemental relevant background information from internet searches, such as the approximate surface area of Lake Sammamish (7.6 sq mi). The scope of the peer review was to review and comment on the provided materials and West TM conclusions, which are provided to address two questions:

Will the discharges from the development cause any increase in water surface elevation (WSELs) in Lake Sammamish compared to existing conditions, and

Will the pumped discharge to a small cove to the west of where Tibbets Creek enters Lake Sammamish significantly elevate WSELs in the cove, and impact the docks of nearby homeowners.

The review consists of considerations and comments on each section as presented in the West TM, followed by an opinion on the conclusions and findings of the West TM.

Introduction

The future development site area (the site) proposed for stormwater management is 47.7 acres. No information was provided as to the current land cover or soils in the existing or proposed condition, nor were modeling inputs provided. This review therefore defers the review of the modeling to others and is limited to the comparison of outputs presented in the West TM.

The basis of the comparison is an evaluation of the “split” management of stormwater flows from the site. The proposal seeks to send base flow to Tibbets Creek, pump detention-equivalent flows to Lake Sammamish via a pipe, and allow flows in excess of the stormwater detention requirements to overflow via gravity to Tibbets Creek. As noted in the West TM, this approach intends to manage (pump) the same stormwater as a normal stormwater management detention approach.

Comment: The proposal requires an assessment of the proposed flow split for the pump design. These are not completely fixed numbers – they can vary by event size, time of year, etc. While this flow pathway split is an important consideration for the design of this system, the difference in flow disposition is not a key consideration because the total amount of water to be pumped or discharged is the same in all conditions.

Impacts to Water Levels in Lake Sammamish

The West TM describes the obligation of the project to manage stormwater discharges to the “pre-developed” condition, modeling the amount of water to be detained in a vault system and discharged at the required pre-development rate. The project discharge rates were modeled and characterized by “average stormwater discharge” and “maximum hourly discharge” rates in Table 1 in the West TM (inserted below for quick reference). These are values to be used for a comparison of existing and future conditions to assess potential impacts on lake levels. Notably, the increased hourly discharge for the highest hourly discharge rate for the 60-years of record modeled is 0.4 cfs. When evaluated as a hydrograph over any 24-hour period, the increase is 0.3 cfs. While 0.3 cfs is more representative of the distributed volume of a large storm over a day, the 0.4 cfs would be more representative of an instantaneous peak flow. Additional discussion of applying this value is described below.

Table 1. Average Stormwater Discharges

Condition	Average Stormwater Discharge	Maximum Hourly Discharge (date)	Maximum Increase in Hourly Discharge	Maximum Increase in 24-hour running average discharges
Existing	0.23 cfs	33.9 cfs (11/4/1998)		
Proposed ¹	0.22 cfs	31.8 cfs (11/4/1998)	0.4 cfs	0.3 cfs
Detention	0.22 cfs	Discharge smoothed	9.4 cfs	4.7 cfs

Note: ¹ “Proposed” condition includes discharges to Tibbetts Creek and the pumped runoff to the Cove

Table 1 shows that the proposed condition average stormwater discharge and maximum hourly discharge would decrease between the existing condition and proposed condition, and notes that the proposed condition includes Tibbetts discharges and pumped runoff. Unless there is a third stream of water diversion, infiltration, or other storage in the system that has not been described, it is unlikely that the flows would decrease as shown in the table. It is also unclear how the maximum increase in hourly discharge (column three) could be a positive number, when the 0.4 cfs difference under proposed conditions would appear to be the difference in maximum hourly discharge between existing and proposed conditions and the table shows a decrease.

No back-up information with modeling inputs or modeling results were provided for review, therefore it is not clear why the average and maximum hourly discharges decrease while the maximum increase in hourly discharge goes up 0.4 cfs in the “proposed” condition (and more in the detention condition). However, if using the increase of 0.4 cfs, the West TM goes on to describe the influence of an increase in 0.4 cfs alone on lake levels. The calculations made on the time to increase the overall lake level at this increased rate appear correct (using a lake area of about 7.6 sq mi). This is a reasonable approach to evaluating the potential to address study question 1, notably the potential for any increase, and if the increase of 0.4 cfs is correct, then the findings of no impact is correct.

When the maximum increase in hourly discharge and average discharge is applied as described, it is very unlikely that these concurrent events would occur as presented. For example, this is the rate (0.4 cfs) for the one-hour maximum, while the by comparison the maximum for a two-day period is reported in the West TM as 0.23 cfs. The shorter time frame would be expected to have a greater difference than longer time frames under these circumstances. However, the 0.4 cfs represents an increase, and the 0.23 represents existing conditions, which I believe has been done to demonstrate that the potential difference in scale of flow changes as the length of the flow comparison time (hydrograph length) increases. This comparison is reasonable for this purpose but the magnitude of the values cannot be confirmed without additional information.

The description of the use of hourly peak flow information and the relationship to the travel time of a “wave” on Lake Sammamish is reasonable and we have no additional comment on that methodology.

Regarding the use of stream gauges and information for establishing the potential downstream influences below the Lake Sammamish weir, we have not independently confirmed the data from weir or the unreferenced King County source, but due to my personal knowledge of the system from past investigations, these data are reasonable and in my opinion are unlikely to have any meaningful influence on the study question.

It is unclear how the data in Table 2 were used to assess potential rise due to increased flows. The storage volume at each stage could be used to reflect a stage-storage curve, which could be used to calculate the rise due to the increased flow. The lake surface area I described above has similar results, therefore the outcomes for lake rise estimates apparently using the stage-storage data are reasonable and I would concur with the findings using those input rates.

The evaluation using the rating curve for the outlet weir considered the average daily flow at low discharge levels, which would seem to have the greatest relevant influence on stages due to any increase in lake inputs. It is unclear why this was done, as it doesn’t reflect potential stage increases at peak inflow and lake stages, which is where the overall concern is placed. It does, however, confirm the relative low influence of peak flows from this site on a system of this size by showing that if the weir had this flow increase applied, the stage of the lake would increase by the stages shown. This evaluation does not have a meaningful contribution to the findings.

Effect of Discharges to Cove West of Tibbetts Creek

This evaluation was prepared to determine if flow added to a particular location in the lake would cause an undue influence on stages or flows in a small cove west of the Tibbetts Creek inlet. A hydrologic model was prepared to estimate inflow rates and a hydraulic model was prepared to evaluate the movement of water in the cove.

No information was provided regarding hydrologic model inputs or results other than the 11.6 cfs reported in the West TM. This review therefore defers the review of the modeling to others and is limited to evaluating the results from the values presented in the West TM. The methodology described for establishing the bathymetric grid for the hydraulic model seem sound and we have no comments on the approach. The hydraulic model inputs of 11.6 cfs and WSEL of 32 feet are reasonable, and Manning’s roughness values are within normal ranges. We have no comment on those inputs and rely on the professional judgement of the modeler.

No other hydraulic modeling inputs or results were provided for review, therefore this review defers the review of the modeling to others and is limited to evaluating the results from the values presented in the West TM. The outcomes shown with very low rises are expected and there is nothing in the provided findings to further comment on.

Conclusions

The West TM provided the following conclusion (in italics). Following each conclusion is our summary opinion on the findings.

1. *Overall Lake Sammamish WSELs would decrease as the project would decrease the average annual discharge from 0.23 cfs to 0.22 cfs under both the “Proposed” and “Detention” conditions.*

The amount of water coming from the 47.7 acre site discharging to the lake would not be decreased unless there was infiltration or storage introduced, although the rate could change slightly. Neither was described, therefore it is unlikely that WSELs would decrease. However, the magnitude of possible rate increases presented or additional water volume, if any, would not be large or significant in scale with the size of the lake. I concur that the probable lake level increase, if any, would be very small to unmeasurable and not impactful.

2. *The analysis shows that under “Proposed” Conditions, the maximum increase in Lake Sammamish WSELs is 0.003 feet. This “worst case” estimate assumes high stormwater discharges from the Hyla Crossing Project during extreme low flows from Lake Sammamish.*

This part of the analysis does confirm the relative low influence of peak flows from this site on a system of this size by showing that if the weir had this flow increase applied, the stage of the lake would increase by the amount shown. It does provide a meaningful demonstration of the magnitude of water level changes required to make a measurable difference. I have no other comment on this finding.

3. *The maximum pumped discharge of water to the cove to the west of the mouth of Tibbetts would result in no increase (to 5 decimal places) at the dock closest to the discharge location.*

We did not review the modeling results, but the methodology used is appropriate to address this question and results presented appear to be reasonable. We concur with this finding subject to model review by others.

4. *Both of these WSEL maximum increase are well within the normal “no rise” criterion of 0.00 feet (to two decimal places).*

This statement is true in that this is the normal standard applied for flood management and the findings presented show this criterion is met.

Additional comment:

The Department of Ecology Stormwater Management Manual for Western Washington has identified Lake Sammamish as a “flow exempt receiving water”, which means Ecology has determined that the impacts of flow discharges from development sites applying the manual are not expected to be significant and that those discharges meet the requirements of the permit. Ecology does not require additional information or demonstration of status or impacts to flow exempt waters. The project does appear to meet the requirements of the Ecology manual as described in the approach and subsequent findings.

Final
MITIGATED DETERMINATION OF NON-SIGNIFICANCE
SEP11-00005

DESCRIPTION OF PROPOSAL: Construction of a stormwater treatment system, 1,400 sf pump station, 42-inch force main discharge pipeline to Lake Sammamish and related appurtenances.

PROPONENT Sheldon Lynne, Director of Public Works Engineering
City of Issaquah

LOCATION: Hyla Crossing, I-90, Greenwood Trust (Sammamish Cove Park – Exhibit 3) Property, Lake Sammamish (see Exhibit 1)

LEAD AGENCY: City of Issaquah

The Responsible Official of the City of Issaquah hereby makes the following Findings of Fact based upon impacts identified in the environmental checklist and the "Final Staff Evaluation for Environmental Checklist No. SEP11-00005, and Conclusions of Law based upon the Issaquah Comprehensive Plan, and other Municipal policies, plans, rules and regulations designated as a basis for the exercise of substantive authority under the Washington State Environmental Policy Act Rules pursuant to RCW 43.21C.060.

FINDINGS OF FACT:

1. The proposed action includes:

Utilities and excavation for a stormwater treatment system and pump station, landscaping, wetland, creek and lake mitigation and paving for parking and maneuvering areas. The project will occur on approximately 1¼ acres with a linear distance of approximately ½ mile of piping. Construction estimates are as follows:

Estimated Total Cut for Project = 15,325 cu. yd.

Estimated Total Compacted Fill Needed for Project = 12,940 cu. yd.

Estimated Total Uncompacted Fill Needed for Project (Assuming 20% Shrinkage Factor) = 15,528 cu. yd.

The project proposes approximately 8,000 sf of disturbance in the wetland north of I-90 and 15,500 sf of disturbance in the associated buffer and the buffer for Schneider Creek. Approximately 100 square feet of disturbance is expected in Tibbetts Creek and 3,000 sf in its associated buffer. A gravel-surface maintenance road would be placed over the portion of the pipe that parallels NW Sammamish Road. (See responses to Public Comment for more detailed listing of disturbance areas).

2. Soil movement, generated through grading and excavation activities, could potentially cause erosion and sedimentation impacts on the area water courses, wetlands and surface water system unless mitigation measures are implemented.

3. Temporary truck trips generated by the import/export hauling operations will likely cause adverse impacts to traffic operations on local streets during peak traffic hours and thus generate increased levels of local suspended particulate emissions unless mitigation measures are implemented.

4. Without mitigation measures in place, site preparation and construction activities will generate increased levels of local suspended particulate emissions.

5. The project site contains both stream and wetland critical areas as delineated by the Watershed Company in July 2011; and, Lake Sammamish as a waterbody of Statewide significance.
6. The project could potentially cause disruption to the functions and values of the on-site wetlands and streams and Lake Sammamish if mitigation measures are not included.
7. The construction of impervious surfaces (pump station and pipe corridor) will adversely impact the area's natural features unless mitigating measures are implemented.
8. Proper location, design, construction and maintenance of the project's storm drainage facilities are necessary to ensure protection of water quality while avoiding adverse aesthetic and environmental impacts. The pipeline would be permitted under IMC 18.10.420 (Public agency and utility exemption). To be allowed under IMC 18.10.420, the following criteria must be met:
 1. There is no other practical alternative to the proposed development with less impact on the critical area. *There is no route to the lake that avoids all impacts.*
 2. The proposal minimizes the impact on critical areas. *The pipeline has been located to be outside of the Schneider Creek critical area and buffer; and, has been located to minimize intrusion into Wetland A.*
 3. Mitigation measures are proposed as needed to avoid any significant adverse impacts to the critical area. *The construction plans will be accompanied by a mitigation plan that will look to minimize the impacts from construction and add vegetation that will improve the critical areas.*
9. The proposal will require removal of existing vegetation over the portion of the pipe alignment north of I-90.
10. Due to the parcel's location along a stream bank, given the historical significance waterways have played in past cultures, there exists the potential for historic and/or cultural artifacts to be located on the property.
11. The City does not own adequate property south of I-90 for the pump station and treatment facility.
12. The pipe is proposed across property designated "Community Facilities – Open Space".
13. The pump station may have a visual impact on the surrounding area.
14. Utilities are generally available in the vicinity.
15. The previous environmental documents identified in the Final Staff Evaluation and their supporting documents are hereby incorporated by reference as though set forth in full. These documents are available for review at the Major Development Review Team offices.
16. The City received comments on the SEPA Checklist from Ms. Connie Marsh dated 12/12/2011 and Mr. David Kappler on 1/10/2012. Requests for clarification and comments were also received on the Proposed Decision from Ms. Connie March dated 21 February and 29 February; Ms. Erika Vandenbrande dated 22 February; Ms. Lisa Kreeger dated 22 February; and, Ms. Karen Walter dated 29 February. Concern was expressed over wetland impacts; creek impacts; Lake impacts; maintenance access through the Greenwood Trust property; and, stormwater discharge. These comments were addressed in the staff report (see Attachment 1).
17. The *Final Staff Evaluation for Environmental Checklist No. SEP11-00005* is hereby incorporated by reference as though set forth in full.

CONCLUSIONS OF LAW:

Staff have concluded that a MDNS may be issued. This decision is based upon the environmental checklist and its attachments, and the "Final Staff Evaluation for Environmental Checklist". The MDNS is supported by plans and regulations formally adopted by the City for the exercise of substantive authority under SEPA. The following are City-adopted policies which support the MDNS:

Land Use

- 1.2.1 Coordinate land use planning and management of fish and wildlife resources with affected State agencies and federally recognized tribes;
 - 1.3.1.2 establishing standards to minimize peak discharges and durations of storm water runoff;
 - 1.3.3.4 improving the local drainage system to reduce the extent and duration of flooding.
- 1.6.1 Streamside Property: Explore methods to provide incentives to streamside property owners for enhancement of riparian habitat.

Utilities

- 1.2.1 **Utility Provision:** Ensure utility provision maximizes public safety, minimizes adverse environmental impacts, and is compatible with surrounding land uses.
- 1.2.4 **Design and Construction Standards:** Include design and construction standards which are environmentally sensitive, safe, cost effective and consistent with the serving utilities' public service obligations.
- 1.2.5 **Public Facilities:** Manage public facilities systems in order to provide reliable, quality service and require that the location; type and size of all public facilities be determined and/or approved by the City. The extension and sizing of public facilities shall be based on and be consistent with the land use plan for the specific area.
- 4.1.1 New development or redevelopment shall:
 - 4.1.1.1 Use the King County Surface Water Design Manual, as amended, as design standards for stormwater and water quality facilities;
 - 4.1.1.2 Mitigate, through the development review process, any related increase in City storm drainage service needs.
- 4.1.2 Storm drainage facilities shall be designed to:
 - 4.1.2.1 Minimize potential erosion and sedimentation;
 - 4.1.2.2 Encourage retention of natural vegetation;
 - 4.1.2.3 Infiltrate stormwater wherever feasible using low impact development techniques;
 - 4.1.2.4 Maintain stream base flows;
 - 4.1.2.5 Preserve natural drainage systems such as rivers, streams, lakes, and wetlands; and
 - 4.1.2.5 Provide adequate capacity for future planned growth consistent with the Comprehensive Plan.
- U-4.2 **Flood Protection:** Coordinate with property owners adjacent to the Issaquah and Tibbetts Creeks to increase flood protection, to the greatest extent feasible through both public and private projects, at the following levels of protection:
 - 4.2.2 Tibbetts Creek. The level of protection, as provided by the Tibbetts Creek Greenway Project, is the 100-year event.

6.1.1.1 Encourage the utilities to solicit community input on the siting of proposed facilities which may have a significant impact on the surrounding community prior to seeking City approval for facilities. Substations, reservoirs, and necessary similar above ground utility structures should be appropriately sited, designed and buffered to minimize impacts on nearby uses.

6.1.1.2 Require the reasonable screening and/or architecturally compatible integration of all new above-ground facilities, as long as facility safety and emergency access are not compromised.

U-6.6 Environmentally Sensitive Areas: Avoid facilities such as utility lines and roadways within areas of severe environmental sensitivity. If needed to serve more distant development sites, such facilities should be sized and sited to minimize impacts. Within areas of moderate environmental sensitivity, facilities should be sized and sited in accordance with the existing site conditions.

Parks

P-2.5 Native Vegetation: Within the City's designated open space natural areas, including Native Growth Protection Areas, restoration, enhancement, and stewardship projects shall use vegetative species native to the State of Washington and as appropriate for the project site plant community.

P-2.6 Native and Drought Tolerant Vegetation: Within the City's parks and streetscapes, native and drought tolerant species shall be emphasized and used as appropriate for the project site.

CONDITIONS:

The lead agency for this proposal has determined that it does not have a probable, significant adverse impact on the environment, and an environmental impact statement (EIS) will not be required under RCW 43.21C.030(2)(c), only if the following conditions are met. This decision was made after the review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

1. Prior to the issuance of any construction, the City or its agent must either obtain land or the legal rights to site the pump station and treatment facility south of I-90; and, the permits from WSDOT to cross I-90; and, the necessary permits and approvals to work with the Sammamish Cove Park property and in Lake Sammamish.

2. Following construction, provide a report to the Responsible Official by a qualified professional regarding applicability and success of the following project recommendations:

- a) Locate submerged outfall outlets a suitable distance from areas of high fish use; or, provide suitable habitat to minimize potential for fish exposure.
- b) Locate the outfall to minimize the potential for sediment disturbance, sediment transport, or substrate alteration in areas of high fish use.
- c) Implement established protocols and agency guidance BMPs, TESC, sound attenuation and critical area protection during construction.
- d) Locate all outfall structures below the depth of light penetration or below the maximum depth of plant growth.
- e) Locate the outfall in an area of pre-existing immobile substrate to avoid scour associated with the anticipated discharge velocities.
- f) Implementation of specific construction methods to minimize impacts to the lake bed and vegetation.

3. The portion of the pipe north of I-90 will be redesigned consistent with Exhibit 5 to remove the gravel access road. This entire pipe corridor through the park will be revegetated.

4. Construction equipment through the park property shall be limited to the pipe corridor 20 feet in width through the Park property.

5. Prior to the issuance of any construction permits, a temporary grading, drainage, erosion and sedimentation control plan is required. This plan shall show: quantities and locations of excavations, and embankments; the design of the storm drainage system; and, methods of preventing drainage, erosion and sedimentation from impacting adjacent properties, critical surface water bodies and public storm drainage systems. The measures shall be implemented prior to beginning on-site filling, excavation, grading or construction activities. In addition, the plan shall include a construction sequence element which clearly identifies the timing and methodology required to:

- ❖ Contain areas of active earthwork to prevent uncontrolled discharge of stormwater
- ❖ Minimize the extent and time soils are exposed on-site; and,
- ❖ Address seasonal variations in weather.

6. Prior to the issuance of permits for grading, the applicant must furnish the Responsible Official with a prepared route and schedule for hauling fill material to and from the site. If such hauling will adversely impact the street network, hauling hours will be limited to appropriate off-peak hours or routes.

7. The contractor shall be required to water the site, as necessary, to reduce dust emissions as a result of construction activity. The contractor shall also be responsible for sweeping of public streets which may become soiled as part of construction or hauling activities.

8. Should any items of potential cultural or historic significance be encountered during construction activities, work must be halted in an area large enough to maintain integrity and the State Office of Archaeology and Historic Preservation and the Muckleshoot Indian Tribe, as appropriate, should be immediately consulted.

9. All facilities must be designed to be compliant with the City's Phase II stormwater requirements.

10. Prior to issuance of any permits for construction, the site will be fenced to limit construction impacts on adjacent critical and Park areas. Fencing shall remain in place constantly during construction activities.

11. A Wetland Mitigation plan will be required to be prepared prior to commencement of construction activities. The plan will assess the impact area and will propose mitigation for the construction impacts and buffer replacement for the pipe corridor that will be installed following installation of the pipe. Included in the plan will be a row of trees planted generally at 40-foot spacing (or clustered) between the pipe corridor and Schneider Creek to provide a filtered visual buffer from the buried utility and the adjacent residence. The revegetated critical areas will be monitored for a minimum of 3 years to ensure plant establishment.

12. The pipe south of I-90 and the western bend where it parallels Schneider Creek will be completely below surrounding grade. Markers will be placed within the Park to designate the location of the buried pipe. The portion of the pipe that parallels NW Sammamish Road may be above adjacent grade but must be completely buried with sufficient topsoil to grow plant material (Exhibit 5).

13. Relocate the proposed pump station to not be within the Tibbetts Creek restoration area as identified in Exhibit 2; or, any other critical area or buffer.

14. To minimize the visual impact of this project on the surrounding neighborhood, the pump station will be reviewed by the Rowley Center/Hyla Crossing Architectural Review Committee (ARC).

15. Relocate the pipe to be east of the 100-foot buffer for Schneider Creek (Exhibit 4).

16. No stormwater will flow through the pipe until the treatment facilities are operational. As part of the Operations & Maintenance procedures of the water quality component of this project, the City will periodically monitor water quality of outflow to ensure performance of the treatment facility.

17. Provide copies of all State and Federal Permits to the Responsible Official prior to the issuance of any construction permits.

18. All disturbed areas will be revegetated per the plan identified in Condition 11 and an approved Landscape plan that will cover non-critical area Park land. The Proponent may combine the Critical Area revegetation plan with the Landscape Plan at their discretion.

19. Parties of Record (see attachment 1 of the Staff Evaluation) will be noticed when the wetland mitigation plan (Condition 11) is submitted for City review.

20. As part of the decision process to connect new property to the proposed facility, the City will conduct a flow test augmenting existing flows with potable water to achieve the expected flow rate with the new property. A sample of the water quality in the lake proximate to the outflow will be retrieved and tested. If the sample meets expectations, the additional property may be added to the system. If the sample does not meet design expectations, either the property will be denied; or, modification will be made to the outflow to attain the desired outcome.

21. No properties will be connected to the facility unless those properties limit metal-producing materials (e.g. galvanized, etc.) similar to the limitations contained in the Rowley EIS unless it can be demonstrated through subsequent SEPA review that other site-specific mitigations would result in a similar level of protection.

This MDNS is issued under WAC 197-11-355; the optional MDNS process. The Lead Agency observed a 21-day Comment Period has been observed and the final decision is rendered. There is no further comment period on the MDNS.

Any agency or person may appeal the Responsible Official's environmental determination. Appeals of this decision will be accepted until 5:00 PM, 29 March 2011. Appeals shall conform to the procedural and substantive requirements set forth in Issaquah Municipal Code §18.04.256 and shall be submitted to the City of Issaquah Permit Center at 1775 – 12th Avenue NW, Issaquah, WA 98027.

RESPONSIBLE OFFICIAL:
POSITION/TITLE:

Keith Niven, AICP
Economic Development Department
1775 – 12th Avenue NW
Issaquah, Washington 98027
(425) 837-3430

DATE ISSUED:

14 March 2012

SIGNATURE:



NOTE: this determination does not constitute approval of the proposal. The proposal will be reviewed for and required to meet all appropriate City development requirements.

cc.

Karen Walter, Muckleshoot Tribe
Connie Marsh, IEC
Erika Vandenbrande, SLS (e-mail)
Lisa Kreeger (e-mail)

Exhibit 1 – Project Area



Exhibit 2

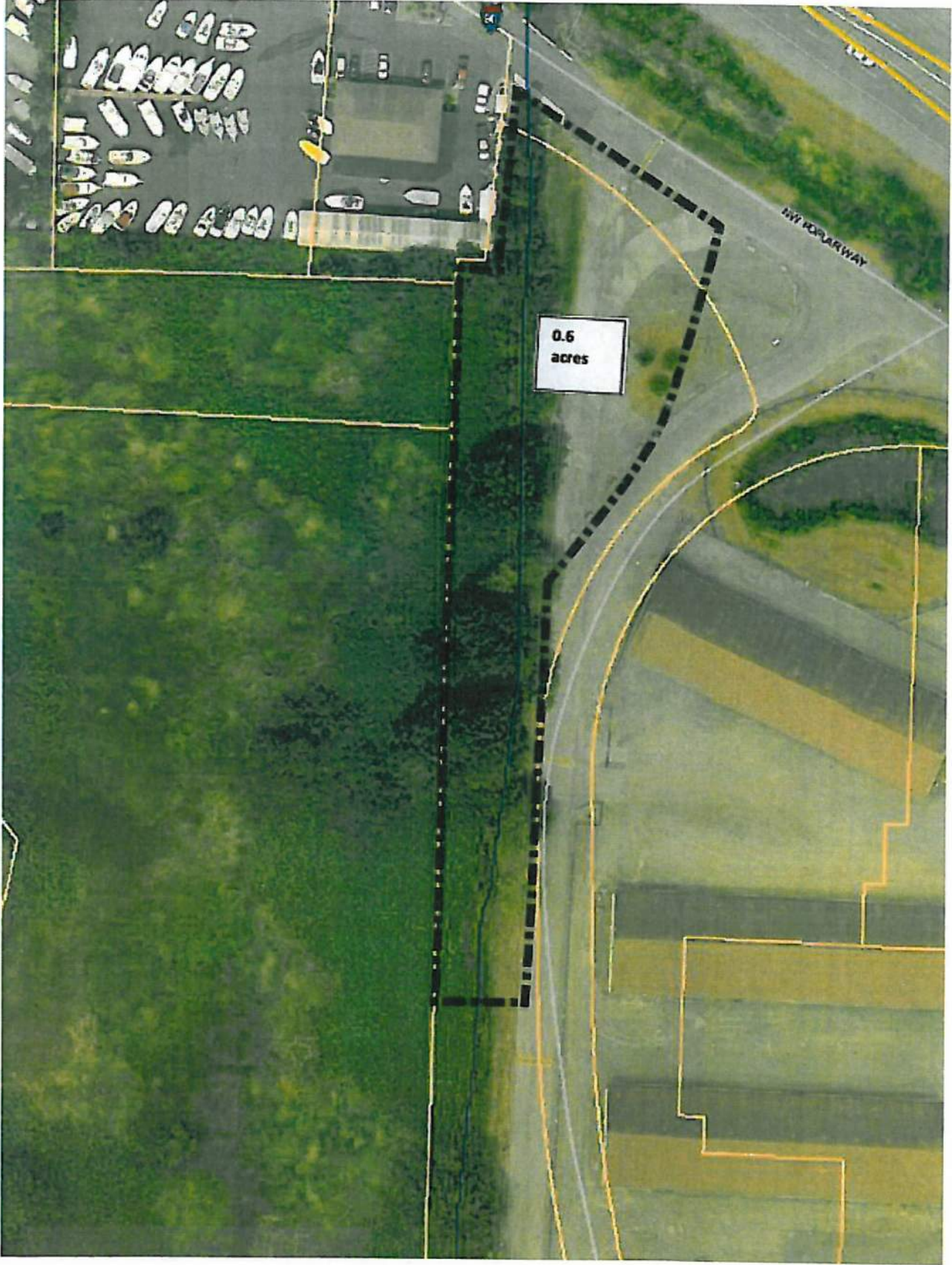


Exhibit 3 – Greenwood Trust (Sammamish Cove Park) Property

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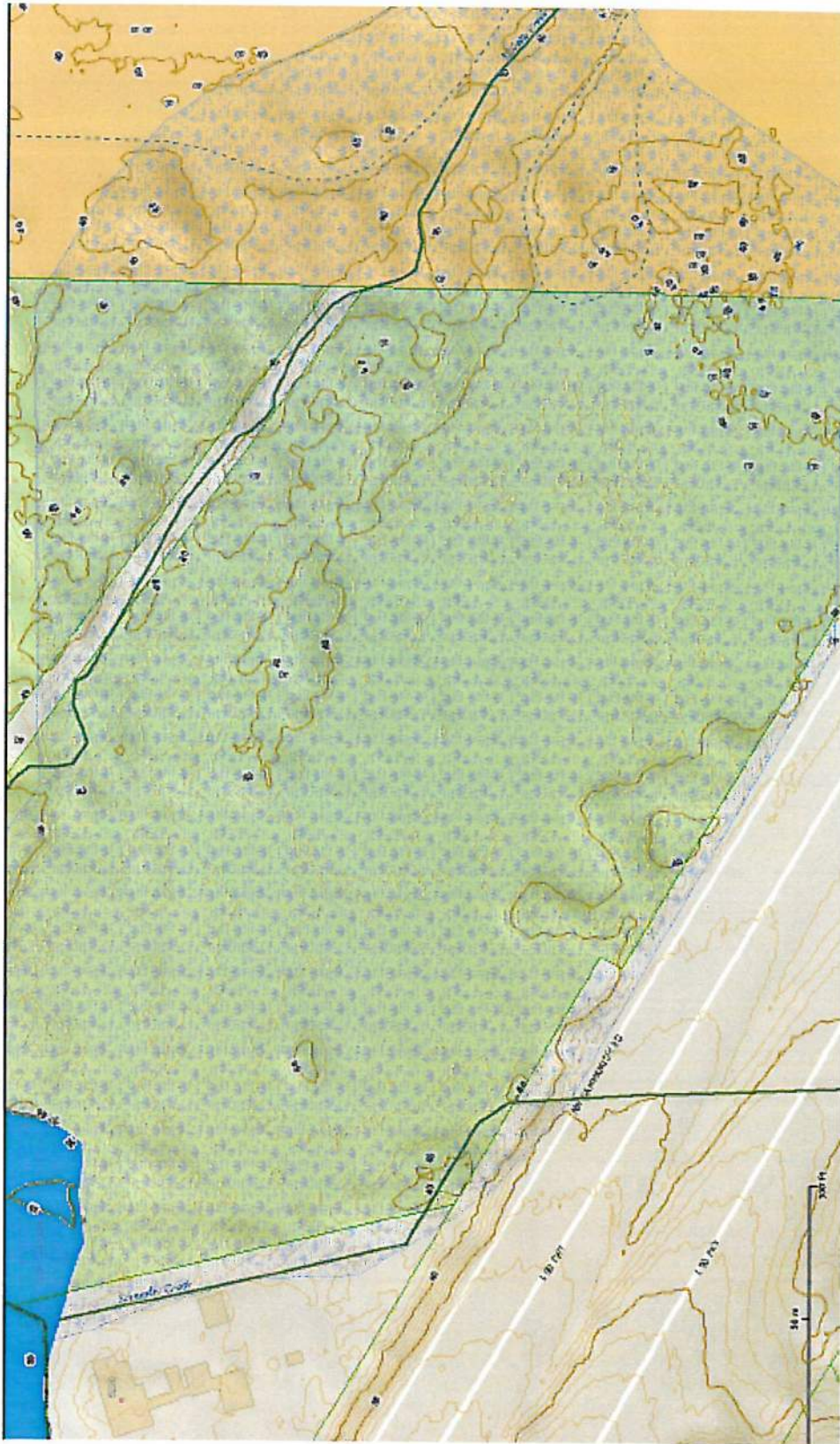


Exhibit 4 – New Pipe Alignment

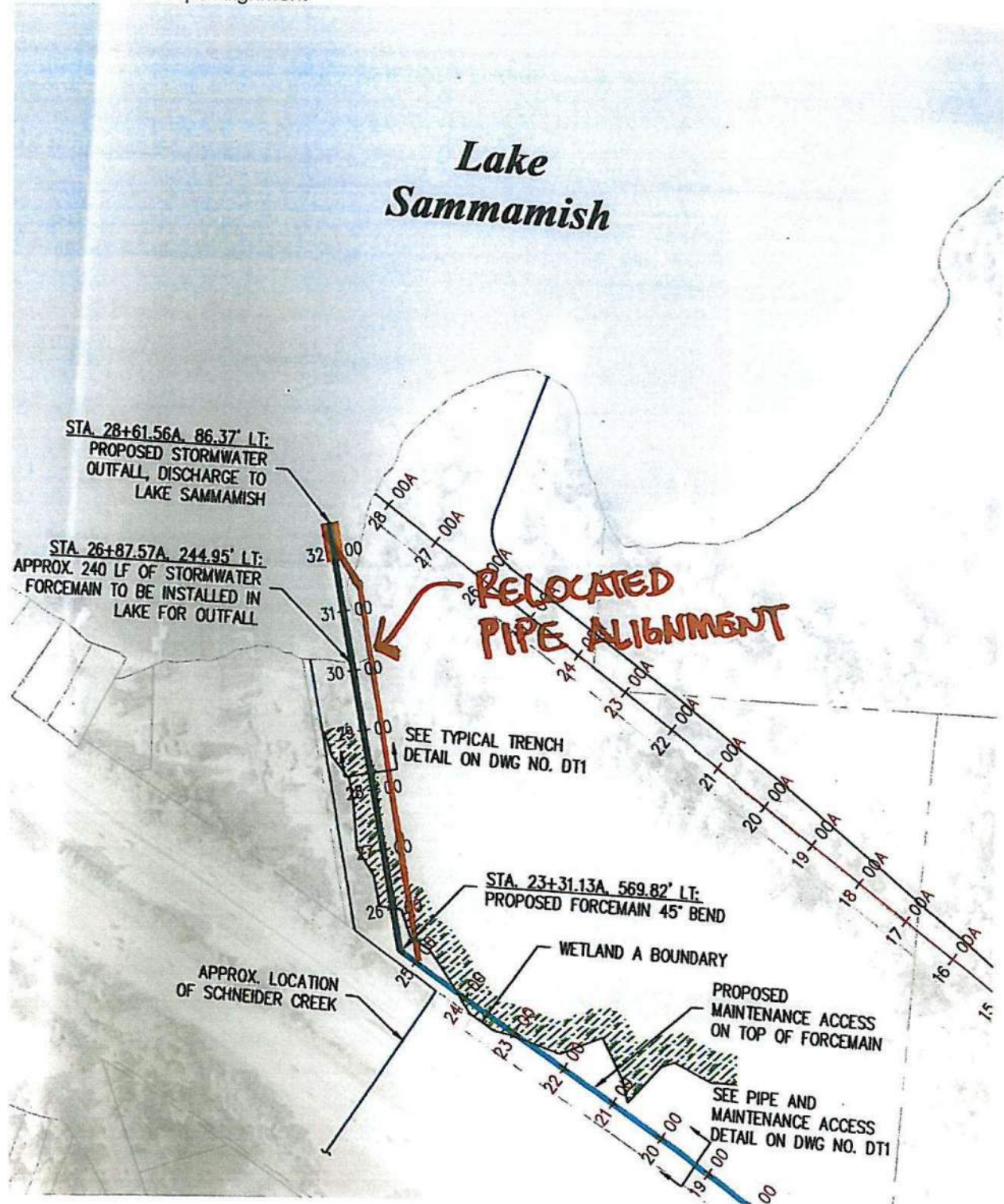
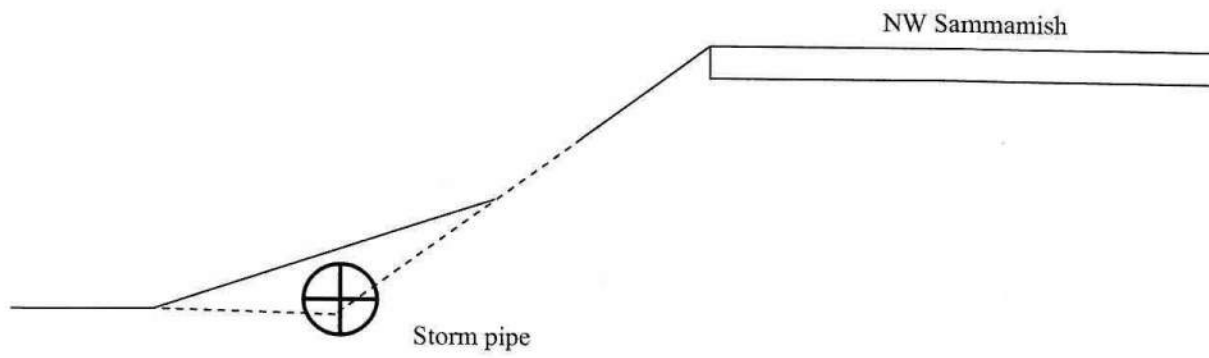


Exhibit 5 – Semi-buried Pipe Section



CITY OF ISSAQUAH SEPA ADDENDUM

PROJECT NAME: Hyla Crossing Pumped Stormwater Discharge

PERMIT NUMBER: SEP11-00005

Other Permits: PRJ21-00006, SHO21-000010, SHO22-00007, ASDP20-00005

DESCRIPTION OF ORIGINAL PROPOSAL: Construction of a stormwater treatment system, 1,400 sf pump station, 42-inch force main discharge pipeline to Lake Sammamish and related appurtenances. The proposal evaluated under this Threshold Determination includes the following:

- Construction of a stormwater pump station (approximately 1,400 sf) south of I-90
- Construction of two stormwater treatment vaults south of I-90
- Installation of 42-inch pipe to convey stormwater
- Construction of a stormwater discharge pipe in Lake Sammamish

DESCRIPTION OF CURRENT PROPOSAL: In the original proposal the stormwater outfall was below ordinary high-water mark (OHWM) of Lake Sammamish to a water depth of 15-feet. The current proposal based on feedback from United States Army Corps of Engineers (USACE), State of Washington Department of Ecology (Ecology), State of Washington Department of Fish and Wildlife (WDFW), and the Muckleshoot Tribe has a nearshore outfall located 10' above OHWM.

PURPOSE OF ADDENDUM: The purpose of an addendum is to add new information and analysis to the original SEPA threshold determination.

The original SEPA determination (Exhibit 3) discussed an outfall below OHWM of Lake Sammamish. During preliminary pre-application meetings with Ecology, USACOE, and other stakeholders, it was determined the below OHWM was infeasible. Factors included a much longer pipeline to reach appropriate depths, impacts to fish habitat, among others. An upland outfall was deemed appropriate and the least impactful alternative.

Additionally, during public comment of SHO21-00007, SHO22-00010 and neighborhood environmental meeting nearby residents brought up increased flood concerns for the cove adjacent to the proposed outfall. Based on those findings and public comment, Staff asked for a Lake Level analysis to explore any potential impacts to flooding in the cove. The report was peer reviewed by Parametrix.

ORIGINAL DOCUMENT: The City of Issaquah, as lead agency, issued a SEPA Mitigated Determination of Non-Significance (MDNS) on March 14, 2012, for the Hyla Crossing Pumped Stormwater Discharge.

The original SEPA checklist (Exhibit 1) stated an outfall in Lake Sammamish and the response to B3(2) from the original checklist is included below (*italics*) along with additional information analyzed for this addendum.

1. B.3(2) Will the project require any work over, in, or adjacent to (within 200-feet) the described waters? If yes, please describe and attach plans.

Yes. Work will occur within 200 feet of, or in all the described waters See project description above and attached plans.

The preferred alternative for installing the pipe in Lake Sammamish is Alternative 3, "Deep Offshore Outfall", as analyzed in the Preliminary Environmental Analysis Report: Hyla Crossing Stormwater Outfall Location, prepared by Herrera Environmental Consultants, 2011.

Lake Sammamish is a Shoreline of the State and Shoreline of Statewide Significance as described in the original SEPA checklist.

Additional Information: The description of Lake Sammamish as a shoreline of the state and shoreline of statewide significance remains unchanged. However, the location of the outfall was analyzed as a deep-

water structure at a depth of 15-feet on the lakebed. Additional analysis of a nearshore outfall was completed (Exhibit 4) and does not result in any change in the SEPA determination.

2. The applicant's consultant KPFF Engineering also prepared a study dated October 2022 to model runoff comparisons to show the change in flow and selected return frequency under pre-development (forested), existing, and proposed conditions for the 1-hour and 15-minutes times steps. This study was also peer reviewed by the City's consultant Parametrix. Using either time step method results in improvement from existing conditions. No additional environmental impacts were identified.

3. PUBLIC COMMENT:

Sammamish Cove Flooding Impacts

During public comment for the Shoreline Substantial Development and Shoreline Variance permits residents voiced concerns about localized flooding impacts in Sammamish Cove. Especially, during periods of prolonged heavy precipitation.

The original SEPA checklist provided anticipated flow rates during precipitation events, including 100-year storm events. The checklist described the runoff generated by Hyla Crossing already enters both Tibbetts Creek and Lake Sammamish and no additional stormwater will be generated and sent to Lake Sammamish.

Additional Information: After receiving public comment Staff asked the applicant to provide a Lake Level analysis (Exhibit 5) to further document any localized impacts to Sammamish Cove. The analysis was peer reviewed by the City's consultant, Parametrix. The peer review concurred with the analysis that there was minimal effect on localized lake levels during peak storm events.

CONCLUSION: After review of the information, the SEPA Responsible Official determined no significant adverse environmental impacts will occur with this Project. Additional mitigation measures are not necessary. The issuance of this addendum is consistent with SEPA Rules WAC 197-11-600(4)(c) and procedures of WAC 197-11-625.

PROPONENT:	City of Issaquah
LOCATION OF CURRENT PROPOSAL:	City of Issaquah Right-of-Way, Intersection of 12 th Avenue NW & SR 900
LEAD AGENCY:	City of Issaquah
RESPONSIBLE OFFICIAL:	Minnie Dhaliwal, City of Issaquah, Community Planning & Development Director
ADDRESS/PHONE:	130 East Sunset Way, P O Box 1307, Issaquah, WA 98027 (425) 837-3000

DATE: February 13, 2023

SIGNATURE: _____

Minnie Dhaliwal

Digitally signed by Minnie Dhaliwal
DN: cn=Minnie Dhaliwal, o=City of
Issaquah, ou=Community Planning and
Development, cn=Minnie Dhaliwal
Reason: I have reviewed this document
Date: 2023.02.13 16:07:30 -08'00'

Exhibit List

1. SEPA Checklist, dated November 1, 2011
2. SEPA Staff Evaluation, dated January 27, 2012
3. SEPA Mitigated Determination of Non-significance, dated March 14, 2012
4. Critical Area Report, dated May 21, 2021, revised April 15, 2022
5. Lake Level Analysis, dated April 6, 2022
6. Peer Review of Lake Level Analysis by Parametrix dated Aug 18, 2022